South Carolina Energy Efficiency Implementation Roadmap

Stakeholder Workshop #2

June 4, 2020

Welcome

Nanette Edwards

Executive Director

South Carolina Office of Regulatory Staff

Today's Objectives

- Review the final recommendations produced by each working group
  - Please note that not all recommendations have received 100% consensus from the working groups
- Provide feedback to clarify and refine the recommendations
- Assess the recommendations based on their relative feasibility and impact
- Establish a foundation for additional discussions in June
- Generate insights and data that will inform the final set of recommendations for the SC EE Roadmap report (due in September 2020)

Today's Agenda

|	
9:00 – 9:20 am	Welcome / Background
9:20 – 10:30 am	First 10 recommendations
	• 5 minute presentation
	• 2 minutes clarifying questions
10:30 – 10:40 am	Break
10:40 - 11:50 am	Next 10 recommendations
11:50 am – 12:00	Concluding remarks

Webinar Principles

- Webinar will be recorded for those that are unable to attend
- Be aware – keep yourself muted during presentations
- Be present – close other apps except for your webinar activity
- Have a beginner's mind – record all questions in the CHAT box throughout the presentations
- Give us feedback!

How to use the Annotate feature

- While viewing a shared screen, click **View Options** then **Annotate** at the top.
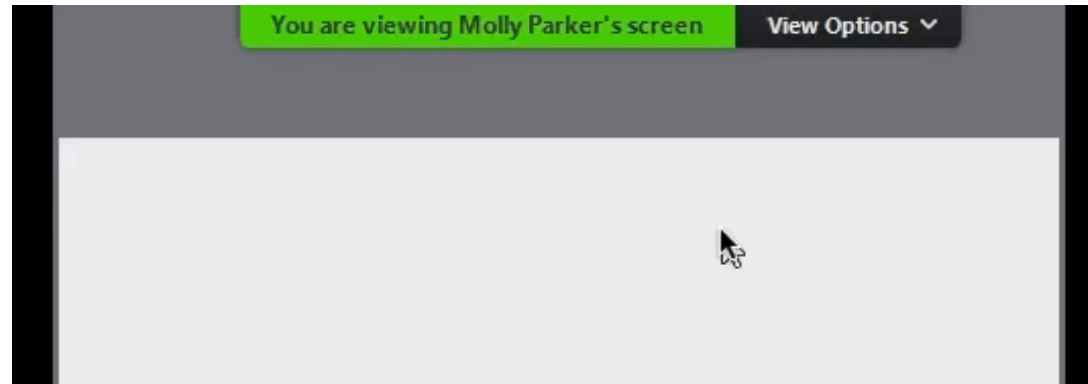
- You will see these annotation tools:
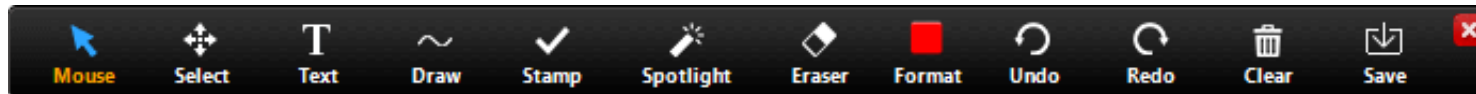
- Try it out! Put a stamp next to which one you like better:
  - Chocolate
  - Vanilla

SC EE Shared Objectives (11/18/19)

Increase energy efficiency in South Carolina by:

- Expanding the coordination, engagement and education of thought leaders, policy makers, and all levels of consumers on energy efficiency issues.

- Creating accessible and adequate funding mechanisms for cost-effective efficiency investments.

- Employing equitable and transparent processes to reduce energy burdens for vulnerable communities by pursuing an equitable and just transition to an energy efficient economy.
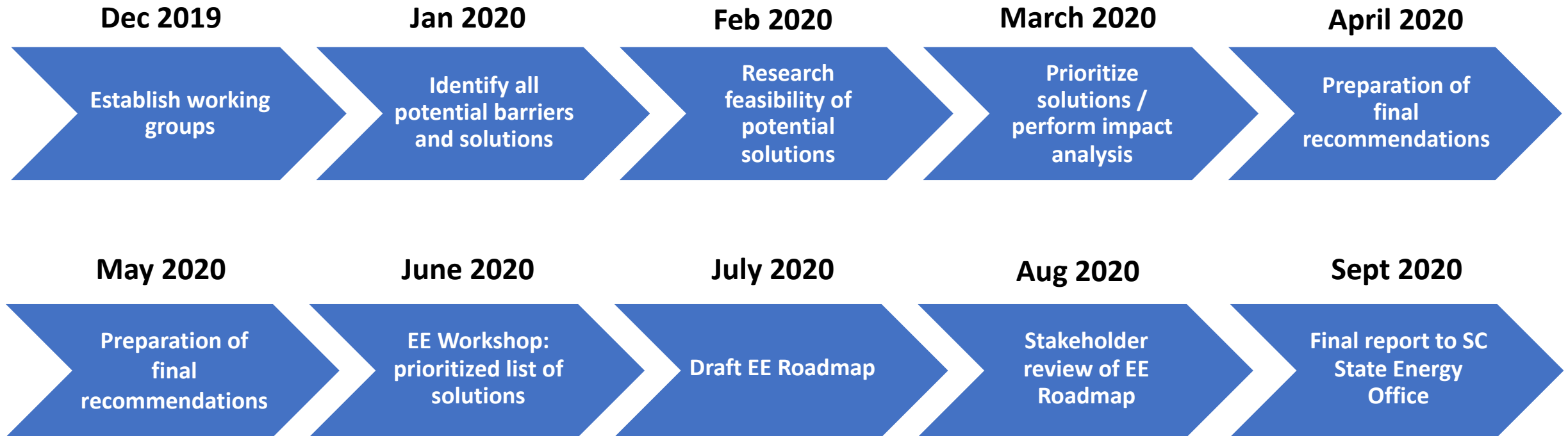
Scope of Energy Efficiency

For the purposes of this initiative, the scope of EE will include:

- Reductions in the energy used by equipment and/or processes while maintaining or improving the user's level of comfort and end-use functionality, ideally at a lower customer total cost.
- Reductions in energy consumption achieved by substituting less energy intensive technology or by reorganizing the process to reduce overall energy consumption.
- Demand response

This scope of EE does not include:

- Short term conservation as a result of a user reaction to a price increase unless the conservation effort is sustained over time.
- Although it can reflect a more efficient use of energy, electrification is not part of this EE Roadmap Process. With that being said, it is an important opportunity that warrants future discussion.

SC Roadmap Timeline

Dec 2019

Establish working groups

Jan 2020

Identify all potential barriers and solutions

Feb 2020

Research feasibility of potential solutions

March 2020

Prioritize solutions / perform impact analysis

April 2020

Preparation of final recommendations

May 2020

Preparation of final recommendations

June 2020

EE Workshop: prioritized list of solutions

July 2020

Draft EE Roadmap

Aug 2020

Stakeholder review of EE Roadmap

Sept 2020

Final report to SC State Energy Office

Six Working Groups

Working Group	Team Leads
Education and Workforce Development	Joy Finch, Greenville Technical College Robert Davis. SC Dept. of Commerce
Efficient Buildings	Bin Wilcenski, Building Industry Association Anthony James, SC Energy Office
Energy Equity / Energy Burden	Keisha Long, SC Dept. of Health and Env. Control Stacey Washington, SC Energy Office
Financing Mechanisms	John Frick, Electric Cooperatives of SC Darcy Jones, SC Energy Office
Non-Profit / Public Entities	Christine von Kolnitz. Medical University of SC (MUSC) Catherine Reed, SC Energy Office
Utility Programs	Shelley Robbins, Upstate Forever Rick Campana, SC Energy Office

Plus, special shout out to Trish Jerman!

Final Recommendation Presentations

- Each presenter has five minutes per recommendation.
- During the presentation, use CHAT box to:
  - Ask clarifying questions
  - Provide different viewpoint
  - Identify additional resources
  - Offer yourself as an SME for implementation
  - Anything else you'd like to ask/inform the team
- Please send your CHATs to EVERYONE or to the specific working group (i.e. Financing Mechanisms)
- Team will spend two minutes answering clarifying questions

Recommendation EWD 1: Metric Development and Integrated Marketing
Working Group: Education and Workforce Development – Awareness Subgroup

Description
- Install an Integrated Marketing Strategy for all EE work
- Use process of Developing Metrics-Taking Action-Reviewing Outcomes
- This process would guide EE actions and provide feedback on consumer engagement

Feasibility
- This is a very feasible recommendation that will take institutional commitment
- This would be implemented in conjunction all actions taken
- All organizations participating could take part, leadership might flow through the Energy Office.

Impact
- The desired impact would be each action taken is followed by a measurement of consumer activities such as purchases, views or clicks.
- These metrics should tie back into the desired outcomes slowly guiding organization activities.

Timeline
- Metrics and the overall strategy would be developed as EE action are drafted and developed.
- There should be no impact from COVD-19

Recommendation EWD 1: Metric Development / Integrated Marketing
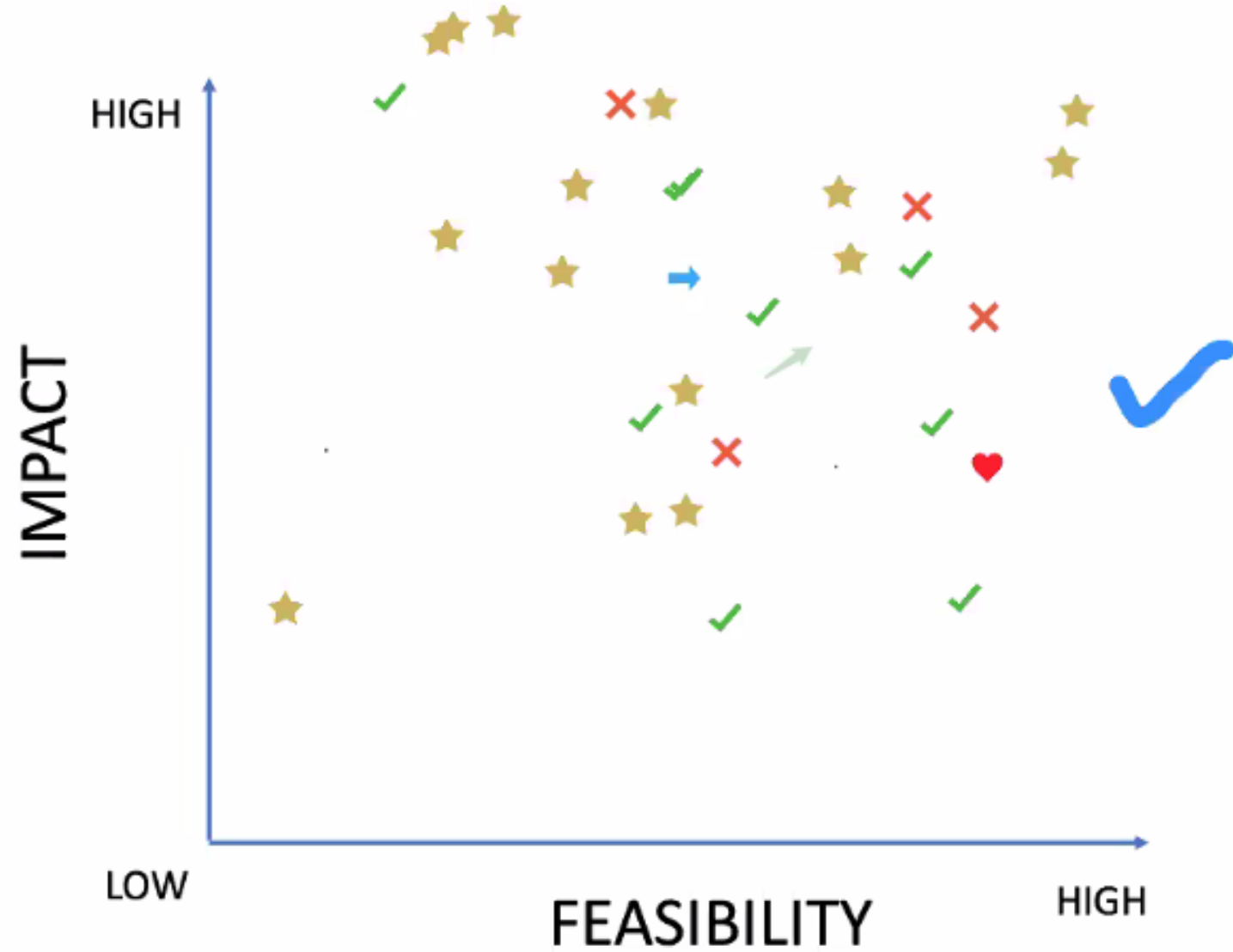
Recommendation EWD 2: Statewide strategy for coordinating EE workforce development training/education
Working Group: Education / Workforce Development Working Group

Description

Coordinate EE education/training efforts in SC by:

1. Identifying currently available EE education/training in a centralized resource list with assigned responsibility for collecting and updating this information
2. Promoting partnerships between K-12 educators, higher education institutions, and employers that identify high-growth energy efficiency career pathways
3. Finding funding opportunities to provide funding for workforce training for job seekers, especially for underserved populations and small businesses

Problems/barriers addressed by this recommendation:

- No current comprehensive resource list available of statewide energy efficiency training and education opportunities
- Currently no coordinated effort to promote related career pathways (some career path efforts in place for related careers like HVAC technicians)
- Need to ensure career paths at all levels (including entry level positions) can help create employment opportunities for low income individuals in SC

How does this recommendation improve EE in South Carolina?

- Trained workforce becomes available that can recognize energy efficiency opportunities and incorporate related practices into customer service norms
- Increased capability to attract and retain EE related business
- Job growth and sustainable wage opportunities for underserved populations

Recommendation EWD 2: Statewide strategy for coordinating EE workforce development training/education
Working Group: Education / Workforce Development Working Group

Feasibility
- Coordination of current training/education should not be difficult to implement if staff available to undertake these responsibilities.
- Service providers, trade employers, and educators will need to participate in a collaborative effort with focus on workforce development where there is a market in place for services and job opportunities available for trainees.
- It is unknown at this time who the lead implementing organization would be. Suggested lead advocating organizations include: SC State Energy Office, SC Dept of Education, SC Dept of Employment and Workforce, SC State Technical College System, SC Association of Community Action Programs, SC Commission on Higher Education, employer networks in EE-related sectors.

Impact
- Reduce energy footprint while simultaneously helping our human capital recover from the unemployment crises caused by the COVID 19 pandemic and obtain sustainable, living wage, employment.
- Positive economic impact expected since effort is primarily related to job training in high growth areas.
- Equity impact also expected to be positive through focus on underserved populations.

Timeline
- Begin implementation in tandem with 2020-2021 school year
- Upfront cost include staffing to collect information and develop database, provide outreach to stakeholders, and formulate career pathways
- Training/education modified for COVID-19 considerations if needed (remote/virtual delivery or small class size maintaining social distance guidelines)

Recommendation EWD 2: Statewide strategy for coordinating EE workforce development training and education

IMPACT

HIGH

LOW

FEASIBILITY

HIGH
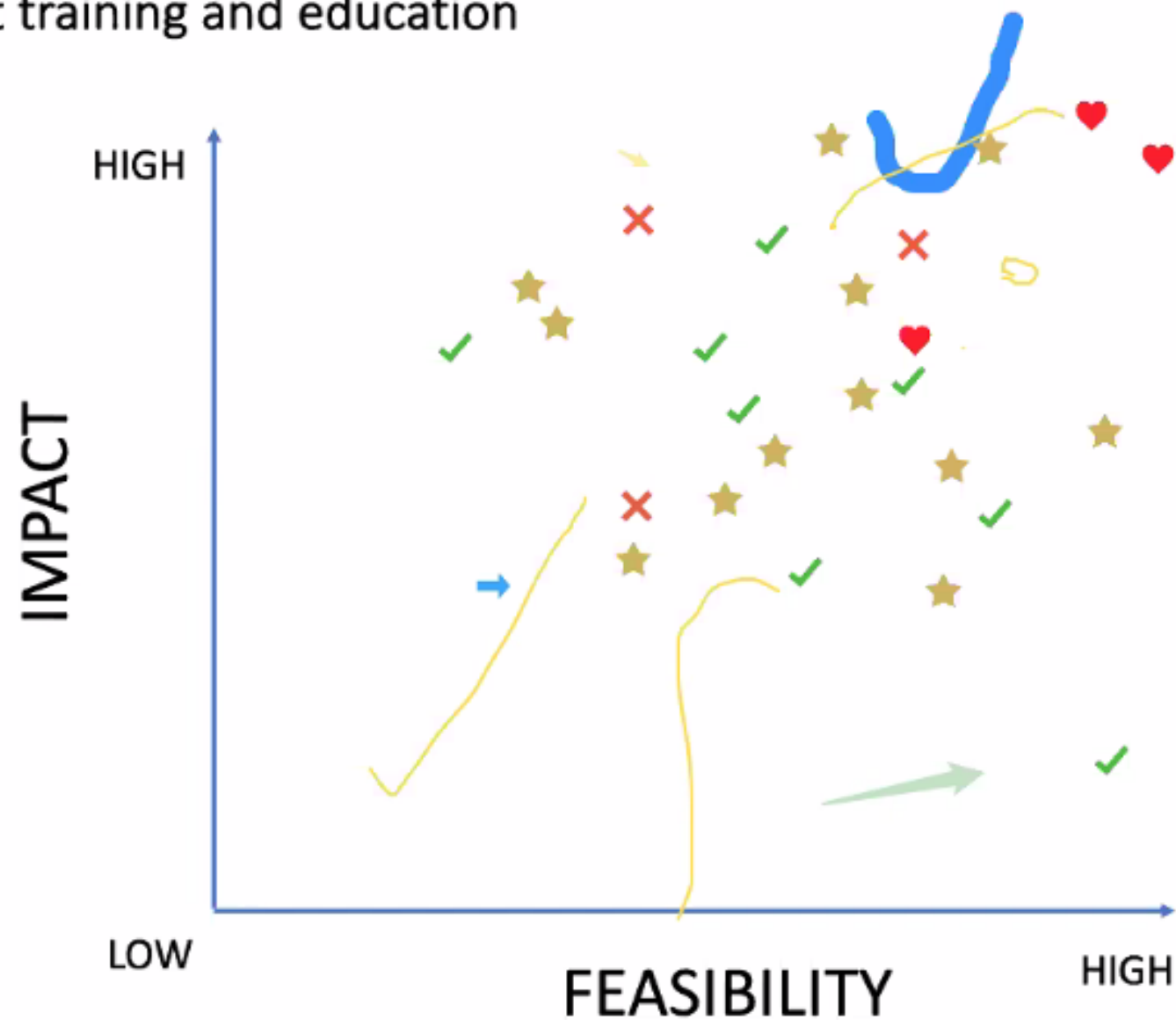
Recommendation EB 1: Commercial Building Labeling Pilot Study
Working Group: Efficient Buildings

Description
- Consider a pilot study (implemented by the State Energy Office) that would evaluate the potential of a standardized commercial building labeling program. The program is intended to inform a potential purchaser/renter – early in the process – of an existing commercial building's cost to operate.
- Targets Commercial buildings of 50,000 square feet or more.

Feasibility
- Medium Feasibility. Highly dependent upon a voluntary entity, acceptance of local real-estate board/association, and the ability of service providers to release historical energy information.
- The Energy Office will partner with NASEO to create the program. The program will be made available to local entities (municipalities, cities, towns and other jurisdictions) for their implementation.

Impact
- Introducing more transparency of energy usage and cost in commercial buildings – which are large energy users – may lead to reduced energy usage and/or cost-effective investments, and associated GHG reductions. These outcomes may lower a service provider's resource requirements which ultimately reduces the energy burden on all ratepayer classes.

Timeline
- The pilot project could be started within 6 months and should conclude within 2 years.

Recommendation EB 1: Commercial Building Labeling Pilot Study
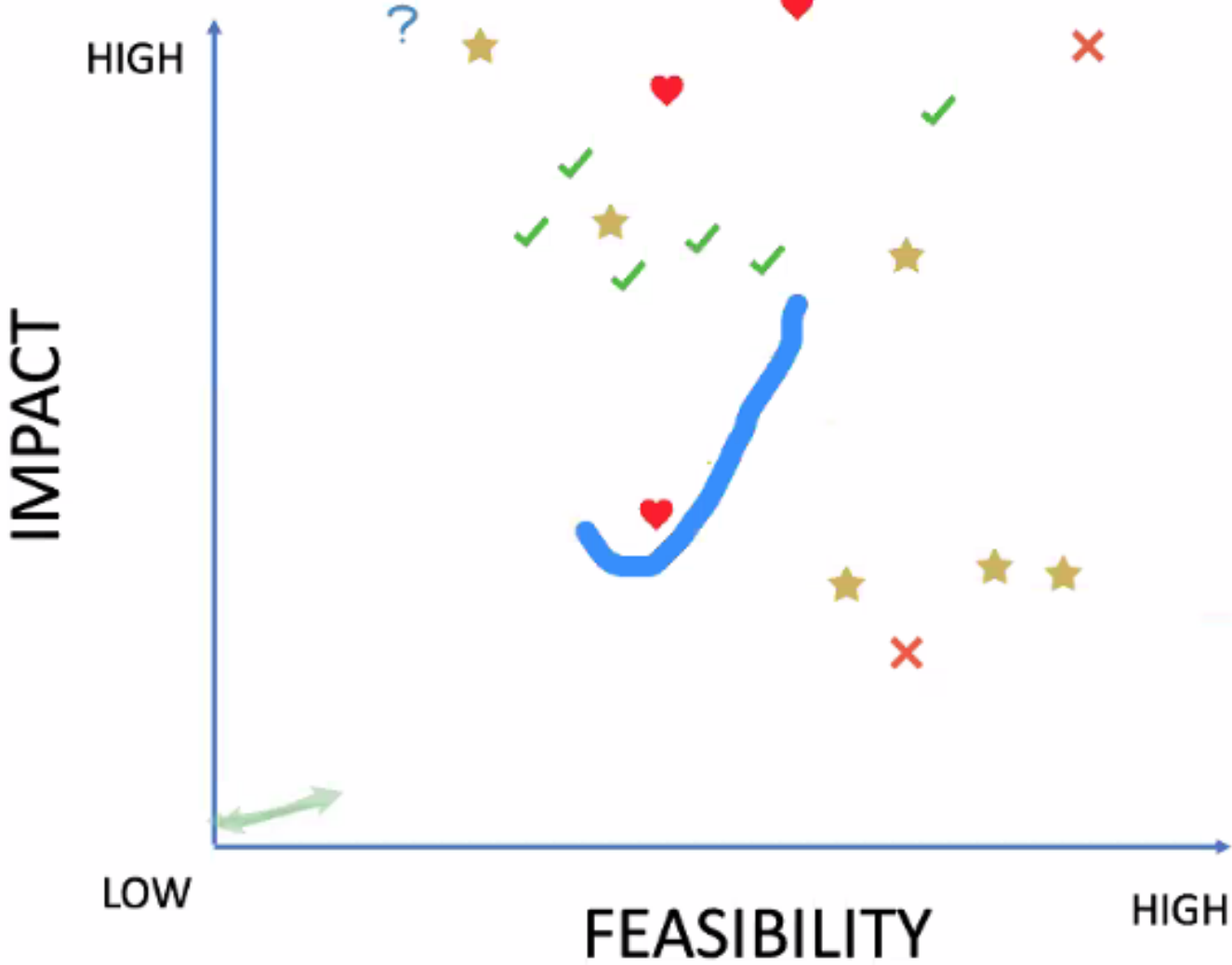
Recommendation EB 2: Sharing of Energy Usage History
Working Group: Efficient Buildings

Description
- Building owner/property manager to provide up to 12 months (most recent) of energy usage (electric, gas) per buyer/renter request or provided in realty listing information.
- While similar to Recommendation 1, this recommendation focuses only on sharing recent historical data. This could also apply to smaller commercial spaces and residential buildings/units.

Feasibility
- Medium to High Feasibility. Collection of this information by the Building owner/property manager is relatively easy to do and carries no cost to accomplish.
- Getting this done as a regular practice when listing a property may take time to accomplish.
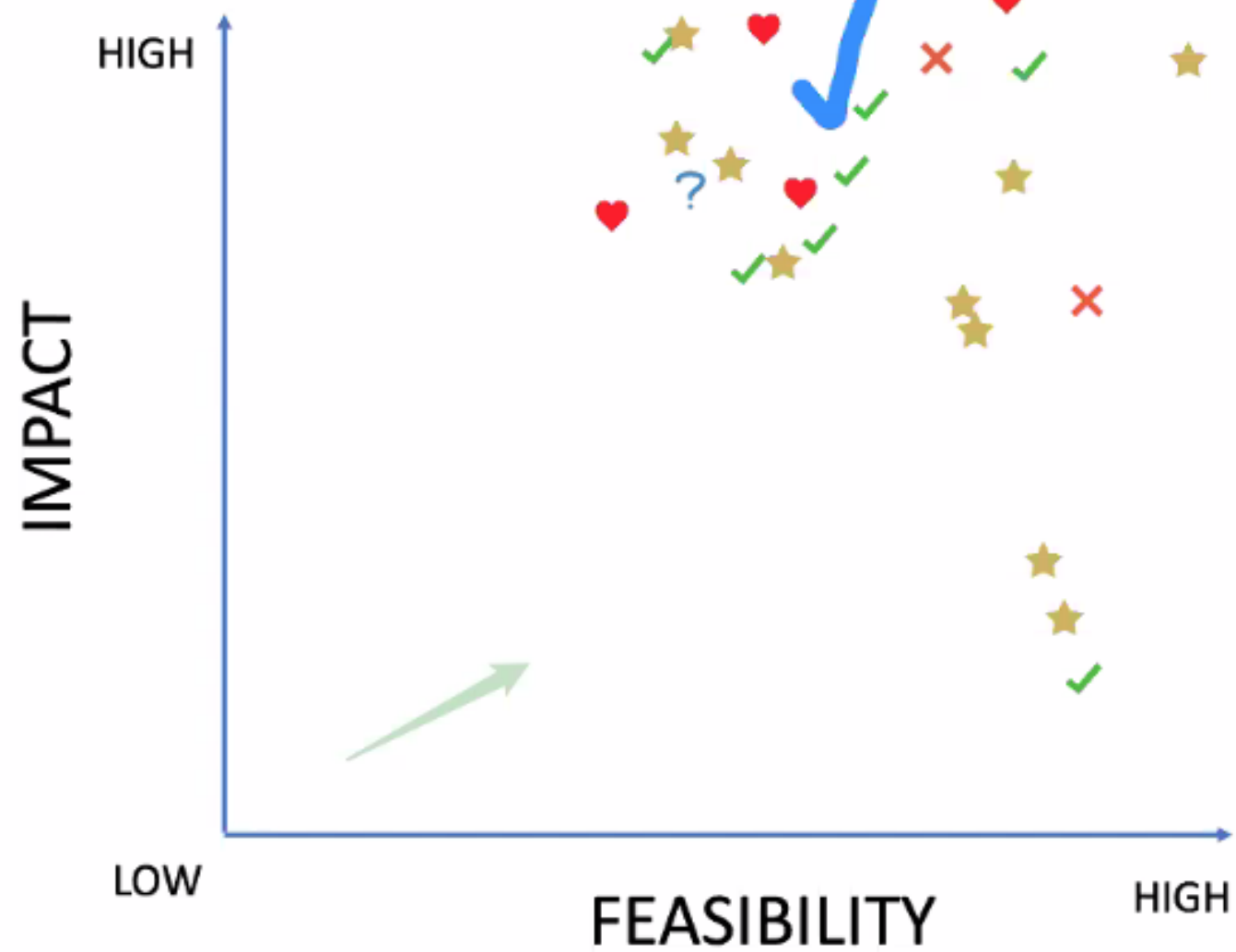
Impact
- Adds transparency to the decision-making process for the consumer in regards to energy-efficiency and the burden of paying energy costs associated with that building/space.
- This information, in many cases, will guide the consumer to the most cost-effective decision, and consequentially, that will be the most energy-efficient decision.

Timeline
- This recommendation could begin immediately, but having outside organizations involved (such as local or state REALTORS® Associations) would be helpful. Communicating with them and rolling out the recommendation to associated parties (agents and owners/managers) could take time.
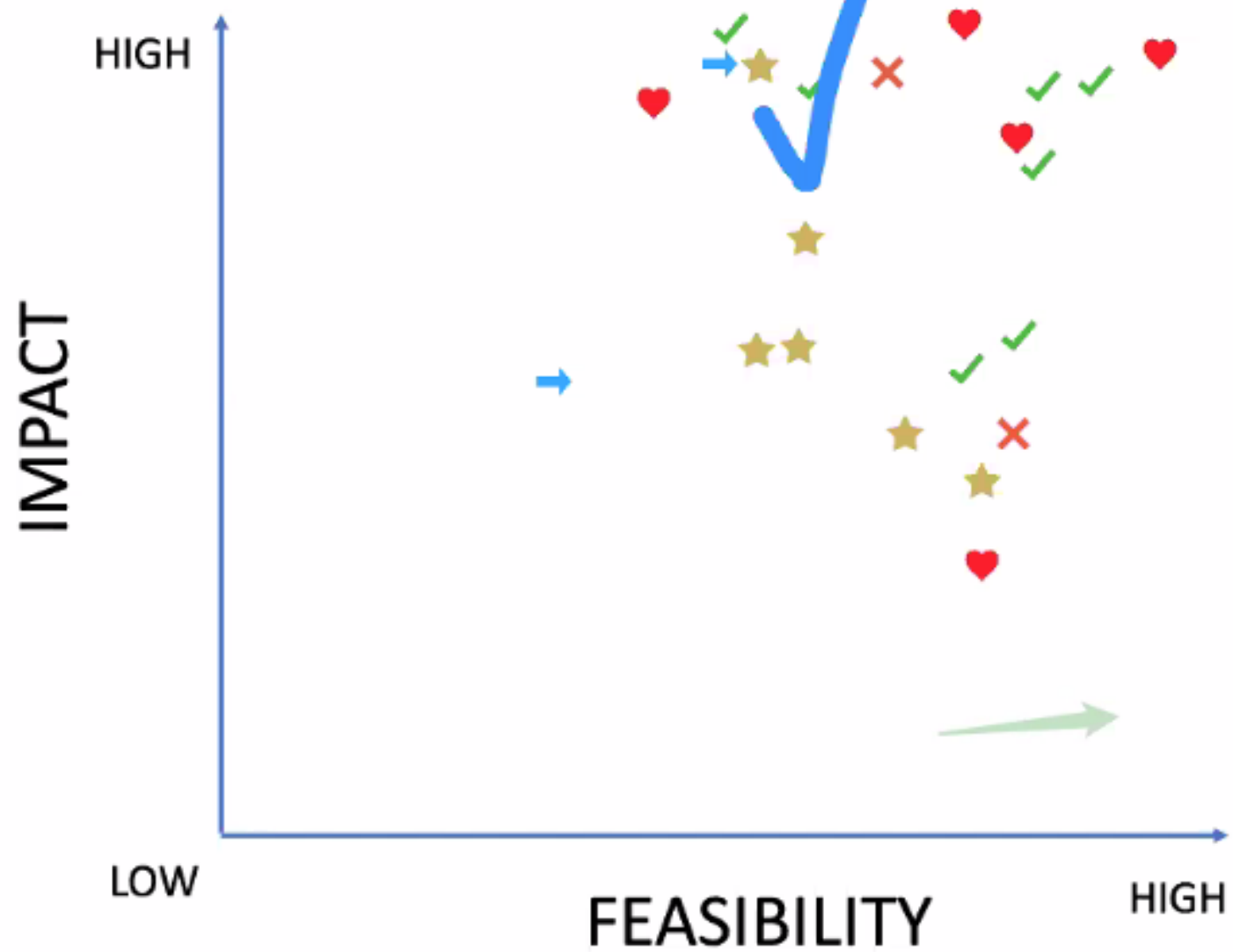
Recommendation EB 3: Valuation of Energy Efficiency in Appraisals
Working Group: Efficient Buildings

Description
- Help SC appraisers be aware of and take available training in regards to energy efficient components of buildings and account for their value in appraisals.
- Education of lenders and the public as to why green certified appraisals are desirable is also a component of this recommendation.

Feasibility
- Because the classes already exist and there is an organization able to offer the classes, it would seem that implementation of this recommendation would be relatively easy. Getting all of the groups on the same page and getting everything going should also be relatively easy.

Impact
- Having a coordinated understanding of the value of energy efficiency and opening the path of measuring and conveying that value through the appraisal and lending processes gives transparency to the process and greater accessibility to energy efficient buildings for all consumers. When consumers have appraisals that reflect the full value of buildings, they then have all the information needed to invest in the most energy-efficient option available.

Timeline
- Three to nine months from initial talks to setting up and promoting classes to holding the first classes.
- Education of lenders and the public could take place concurrently or just prior to the first round of promoted classes for appraisers.

Recommendation EB 3: Valuation of Energy Efficiency in Appraisals

Recommendation EB 4: Adopt Updated Edition of the Commercial Energy Code in South Carolina
Working Group: Efficient Buildings

Description
- Update the 2009 version of the International Energy Conservation Code (IECC) in effect in South Carolina to the 2018 version of the IECC for commercial buildings.
- This will be accomplished through the current statutory amendment and adoption process of the South Carolina General Assembly.

Feasibility
- High Feasibility. Introduce a bill in the 2021 legislative session. Anticipated effective date of the 2018 IECC would be July 1, 2022.
- Based on current legislative conditions we believe a change in Residential Energy Codes is not feasible, which is why this recommendation addresses the Commercial Energy Code only.

Impact
- Updating the state's commercial energy code to the 2018 IECC without amendments, which references ASHRAE Standard 90.1-2016, would save at least 35% in energy use from the 2009 IECC (ASHRAE 90.1-2007). This will result in a 35% cost savings each year for building owners and operators over the state's current energy code, or approximately $0.52 per square foot per year.

Timeline
- Begin immediately. Introduce a bill in the 2021 legislative session. Anticipated effective date of the 2018 IECC would be July 1, 2022.

Recommendation EB 4: Adopt Updated Edition of the Commercial Energy Code in South Carolina
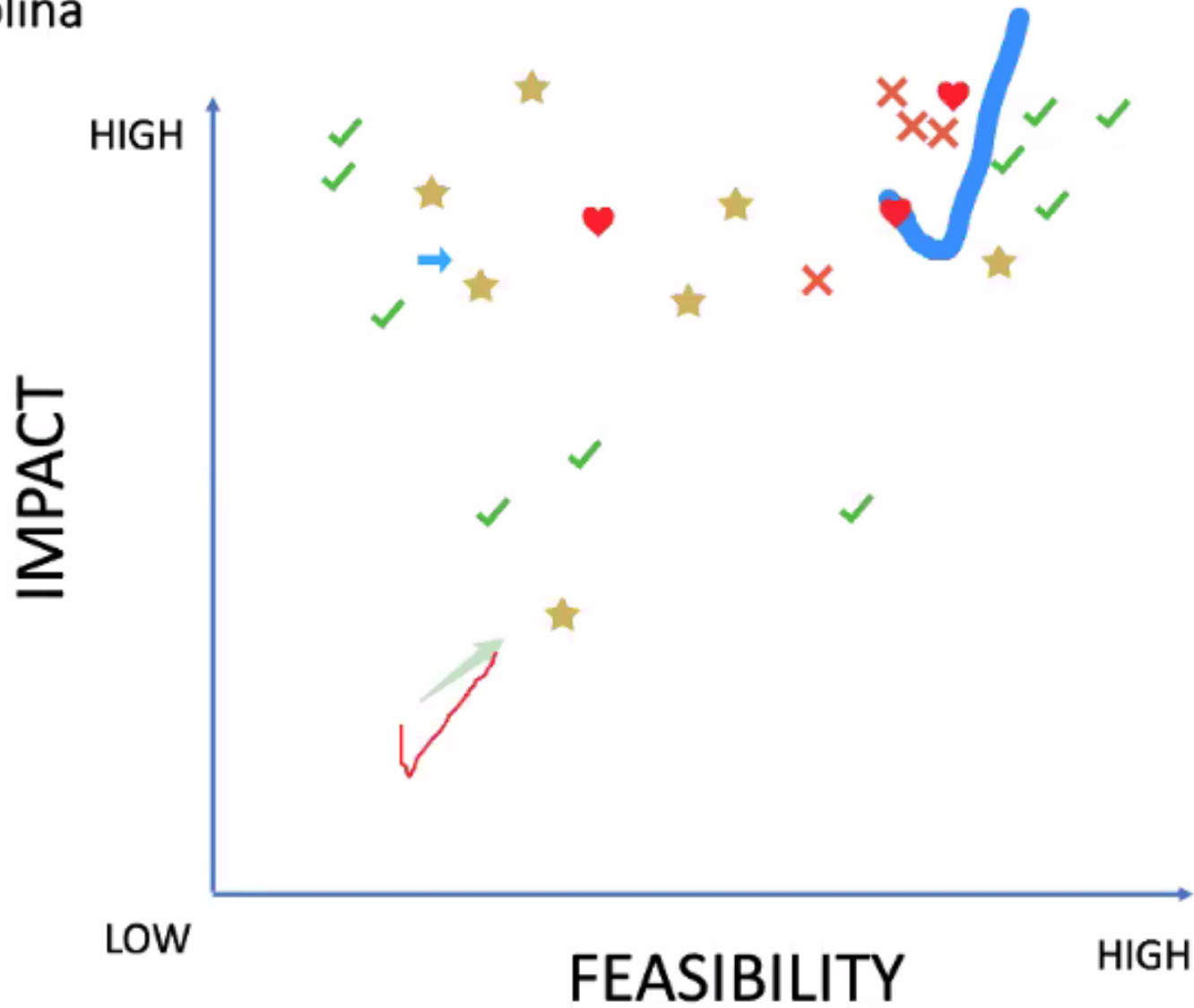
Recommendation EEEB 1: Label, Sticker Disclosures
Working Group: Energy Equity/Energy Burden (EE/EB)

Description
- Energy labeling of and sticker disclosures for renters and purchasers of residential properties
- Labels should be simple, categorical and focus on monetary savings
- Labeling would fill the gap of a lack of information on the energy performance of properties
- Provide a uniform state program that provides information on home operating costs
- Satisfies EE Objective #1

Feasibility
- Many label and disclosure programs already exist, what is truly needed are "Champions"
- Labeling program that is a hybrid of the US DOE Home Energy Score and a State Voluntary Program
- Stakeholders: SC Energy Office, realtors in SC, the Homebuilders Association of SC, the Southeast Energy Efficiency Alliance, the Sustainability Institute, affordable housing advocates, and/or industry disruptors such as Zillow.com
- Legislation can be pursued after a successful pilot project

Impact
- Over time, if people choose more efficient properties, owners of less efficient properties will upgrade
- Reduced need to generate electricity that emits greenhouse gases
- Help reduce residents' energy burden of homes that are not energy efficient

Timeline
- Timeframes will be dependent upon Labeling Champions
- No impact from COVID-19

EXECUTIVE CONSTRUCTION HOMES, LLC
ENERGY LABEL

#_____

HVAC - R-8 14 SEER

GAS HEAT 80% (if installed)

FLOOR - .32

WINDOWS - LOW E .34

WATER HEATER-GAS TANKLESS

DOORS - .29

INSULATION:

WALLS - R-13

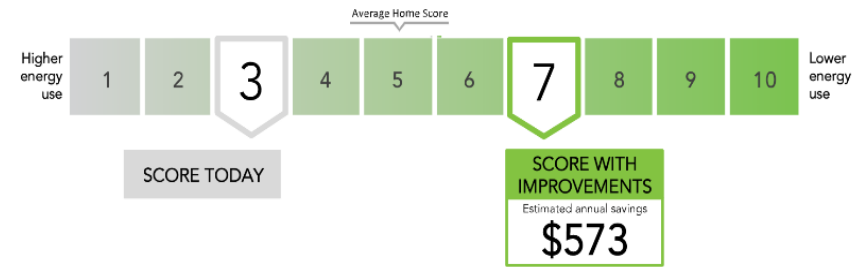WALLS - R-19 (ATTIC AREAS)

CEILING ATTIC - R-30

Better Buildings®
U.S. DEPARTMENT OF ENERGY

Home Energy Score

12345 Honeysuckle Lane
Smithville, AR 72466

SCORE TODAY: **3**

CONDITIONED FLOOR AREA: 1,500 ft²
YEAR BUILT: 1970

Average Home Score

Higher energy use | 1 | 2 | **3** | 4 | 5 | 6 | **7** | 8 | 9 | 10 | Lower energy use

SCORE TODAY

SCORE WITH IMPROVEMENTS
Estimated annual savings
$573

The U.S. Department of Energy's Home Energy Score assesses the energy efficiency of a home based on its structure and heating, cooling, and hot water systems. For more information visit HomeEnergyScore.gov.

Page 1 of 6

ASSESSMENT: Official | December 22, 2016 | ID# 1234567

SHOW ALL HOTSPOTS

U.S. DEPARTMENT OF **ENERGY**

# Recommendation EEEB 1: Label, Sticker Disclosures
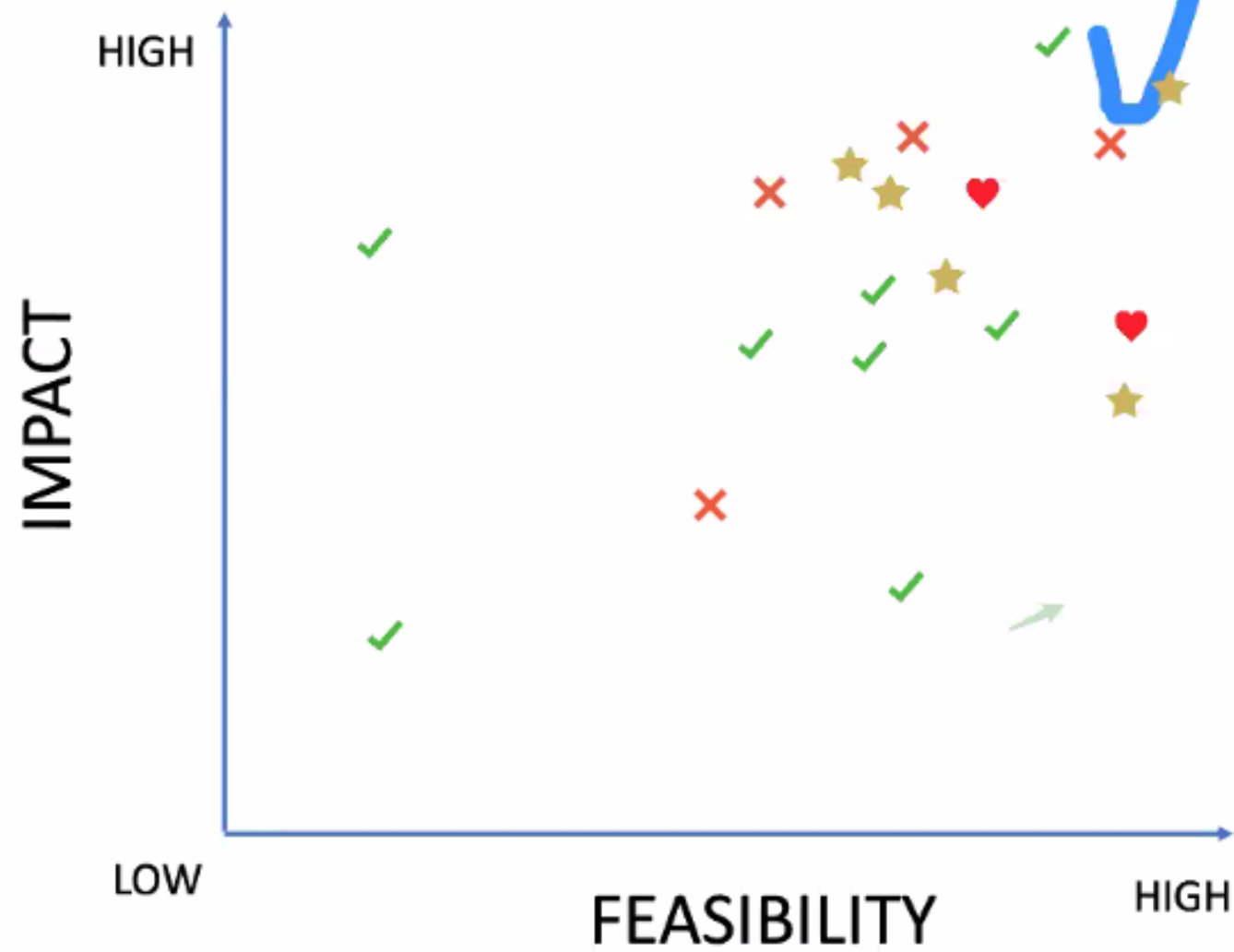
Recommendation EEEB 2: One Stop
Working Group: Energy Equity/Energy Burden (EE/EB)

Description

- A single service & application for residents to apply for services such as LIHEAP, WAP and home rehabilitation
- Information on energy efficient practices and incentives could also be incorporated into this service
- Eliminates barrier of having to contact different offices/complete many applications to receive services
- If people know the resources available to them, they will be better able receive incentives for upgrading their home and reduce their energy consumption
- Satisfies EE Objective #1

Feasibility

- Coordination with multiple stakeholders is required
- The One Stop would be an add-on to a SC Energy Office site, EnergySaver.sc.gov
- Partnership/board of advisors would be created to advocate and implement this recommendation including SCACAP, OEO, Depart. of Administration, SC Housing, Municipal Association

Impact

- High Impact: One location to access EE programs would make it easier for individuals
- Reduction of program administrative burdens
- Challenge: potential for redundancy of staff from other programs
- One Stop will help connect people to Healthy Home initiatives with less hassle

Timeline

- Discussions could start immediately. An advisory board would need to be assembled, the implementation process outlined, and a pilot location selected
- "Off the shelf" project which could increase the likelihood of receiving COVID-19 stimulus money

Recommendation EEEB 2: One Stop
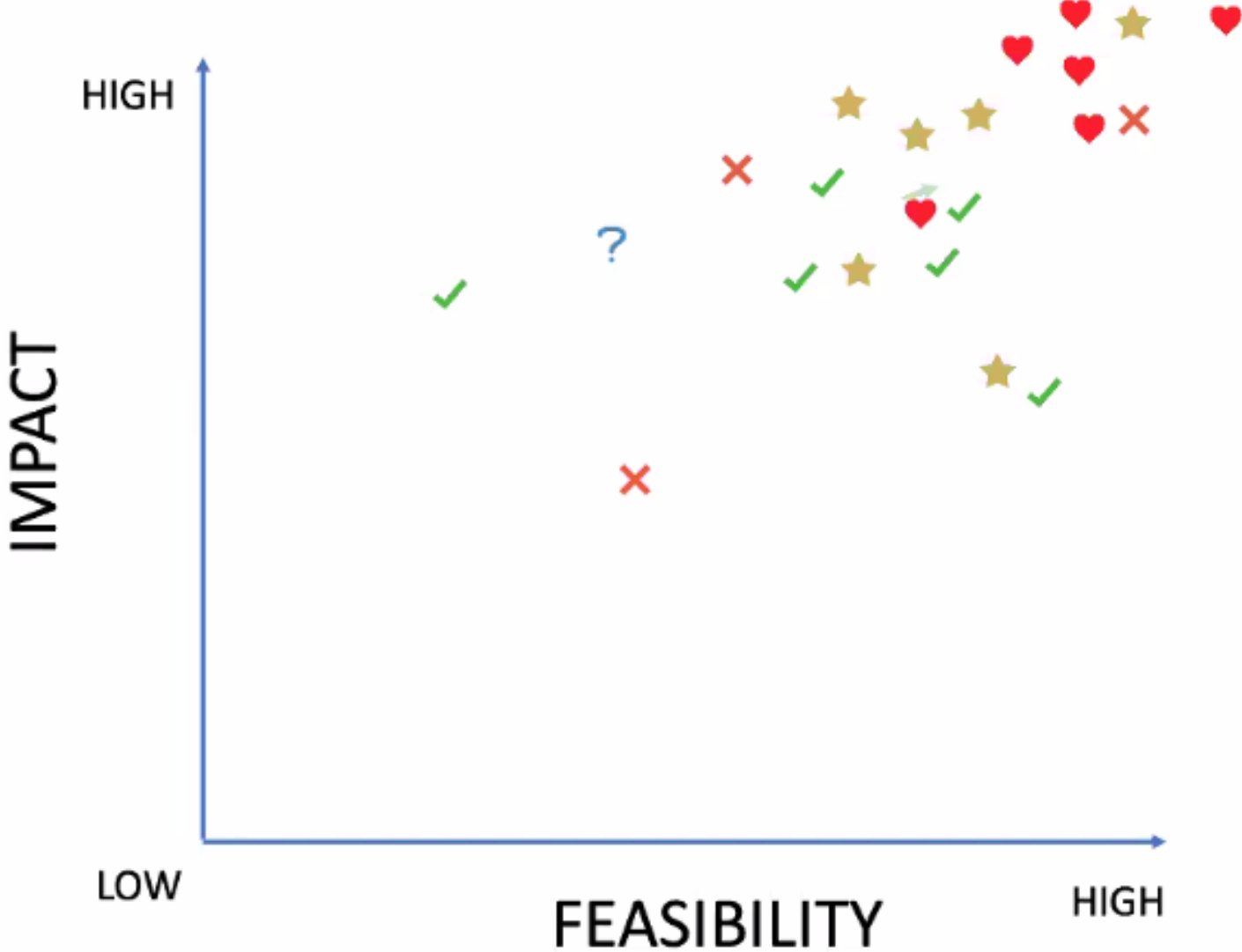
Recommendation EEEB 3: Weatherization Program Funding
Working Group: Energy Equity/Energy Burden (EE/EB)

Description
- Funding is available from utilities to use for low income home weatherization, but because of a DOE administrative decision to count this funding as income for the CAAs, most of the funding is not being used
- SCACAP could partner with the utility companies to administer weatherization funds
- This recommendation would satisfy EE Objective #2

Feasibility
- The current process amounts to a DOE administrative barrier. A work around is possible through SCACAP. SCACAP does not receive DOE funding
- Stakeholders will include utilities, SC Office of Economic Opportunity, and the SC Energy Office

Impact
- High impact: increase in home weatherization, LIHEAP utilization, and HVAC replacements

Timeline
- Speed of implementation is dependent on how quickly we can identify alternative processes
- Reduce the energy burden of individuals that have recently lost jobs because of COVID-19

Recommendation EEEB 3: Weatherization Program Funding

IMPACT

HIGH

LOW   FEASIBILITY   HIGH
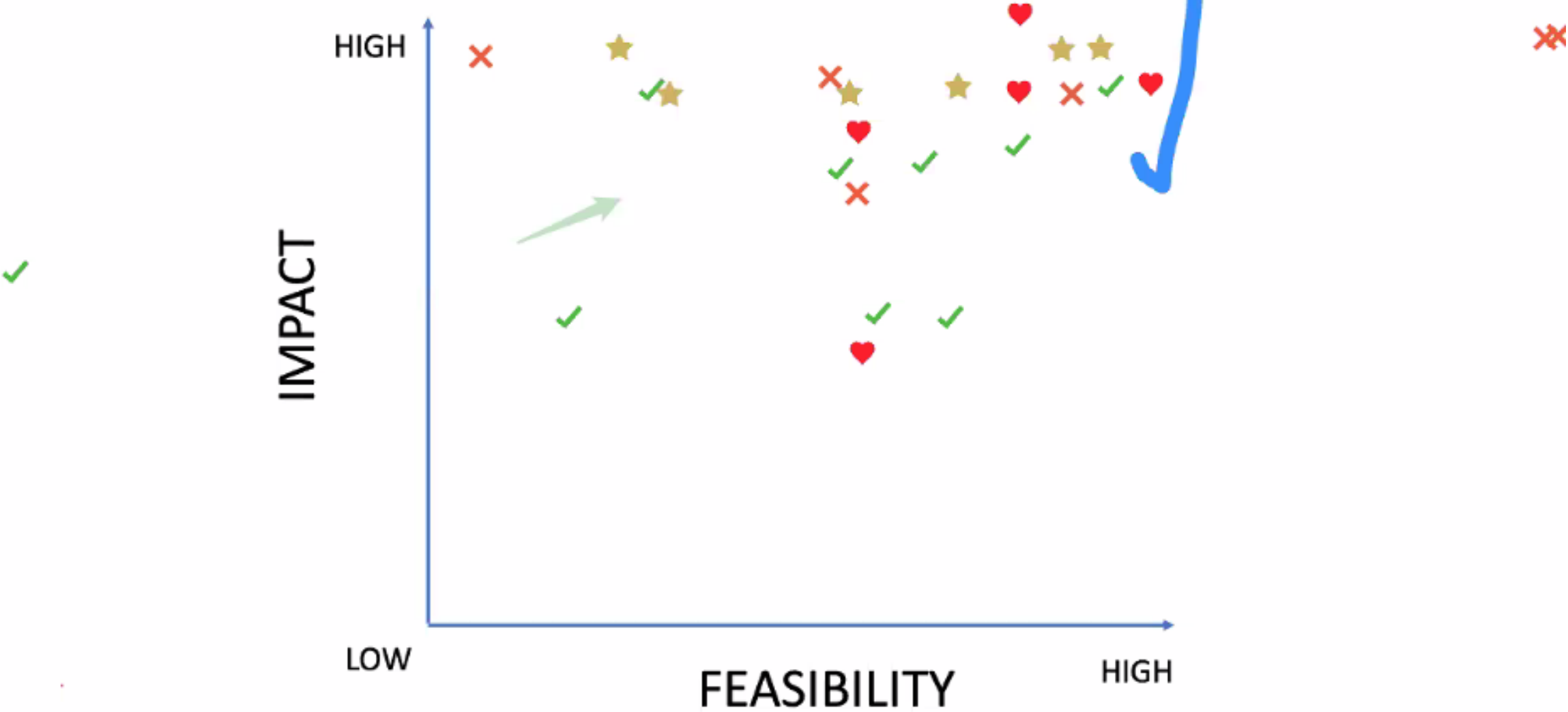
Recommendation FM 1: Evaluate the Expansion of On-Bill Financing Programs
Working Group: Financing Mechanisms

Description
- Study how to improve the effectiveness and accessibility of on-bill financing (OBF) – including on-bill repayment and on-bill tariffs – across multiple sectors
  - how LMI households may be more effectively served regardless of power provider;
  - the needs of electric power providers;
  - an examination of one or many on-bill structures

Feasibility
- No legislative or external action required to begin the study
- Energy Office staff to facilitate the study process
- Stakeholders: electricity providers, efficiency and environmental advocates, consumer advocates, LMI advocates, efficiency upgrade contractors, etc.
- Regulated utilities would need to secure PSC approval and stakeholder support

Impact
- Reduce energy burdens, particularly for LMI households
- Provide an option for households with limited access to other energy efficiency financing options, such as renters
- Assist customers with economic hardships due to COVID-19 by reducing monthly bills (although power providers experience revenue shortfalls and may not have capital available to provide these programs)

Timeline
- Could begin immediately at very little cost and achieve recommendations within one year

Recommendation FM 1 : Evaluate the Expansion of On-Bill Financing Programs
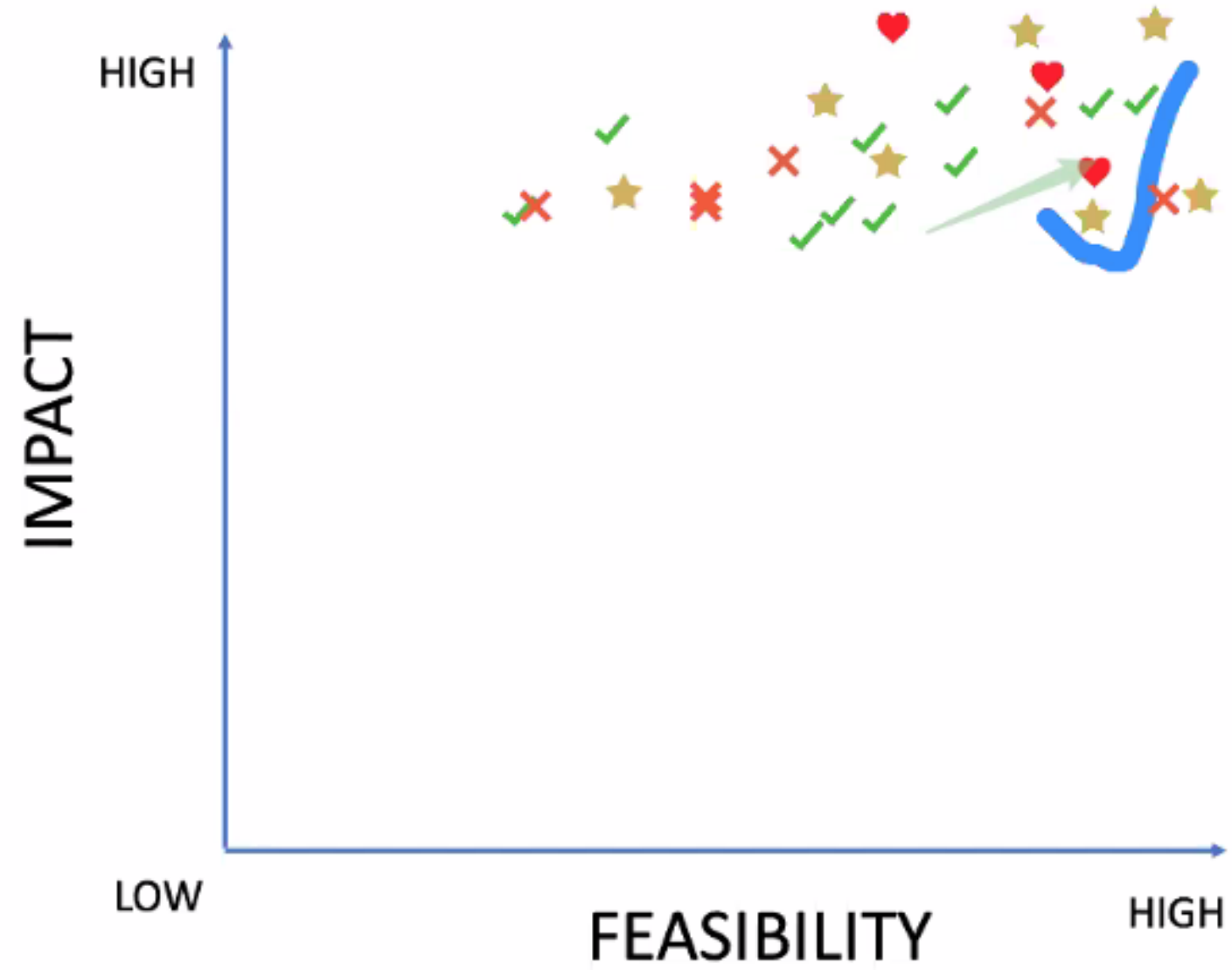
BREAK

Please return by 10:40

Recommendation FM 2: Assess the Feasibility, Costs, and Benefits of Establishing a South Carolina Green Bank
Working Group: Financing Mechanisms

Description
- Assess the feasibility of a South Carolina-based "Green Bank" to issue loans, provide credit enhancements, and invest in EE projects to benefit SC government agencies, businesses, congregations, communities, nonprofits, and consumers
  - Examine options for initial seed funding and ongoing capitalization, including existing financing agencies/programs in SC
  - Examine options for an administering entity, such as a third-party administrator/independent nonprofit or government agency

Feasibility
- No legislative or external action required to begin the study
- Energy Office staff to facilitate the study process
- Third-party experts – e.g., the Coalition for Green Capital –to conduct a feasibility study/market analysis
- Stakeholders: finance experts, electricity providers, efficiency and environmental advocates, consumer advocates, LMI advocates, efficiency upgrade contractors, etc.

Impact
- Increase access to low-cost capital for EE for public entities, private-sector energy industry, commercial and industrial customers, and/or power providers to provide on-bill financing
- Stimulate job creation in COVID-19 recovery efforts and accelerate SC's just transition to a clean energy economy

Timeline
- Could begin immediately and likely take at least a year

Recommendation FM 2: Assess the Feasibility, Costs, and Benefits of Establishing a South Carolina Green Bank
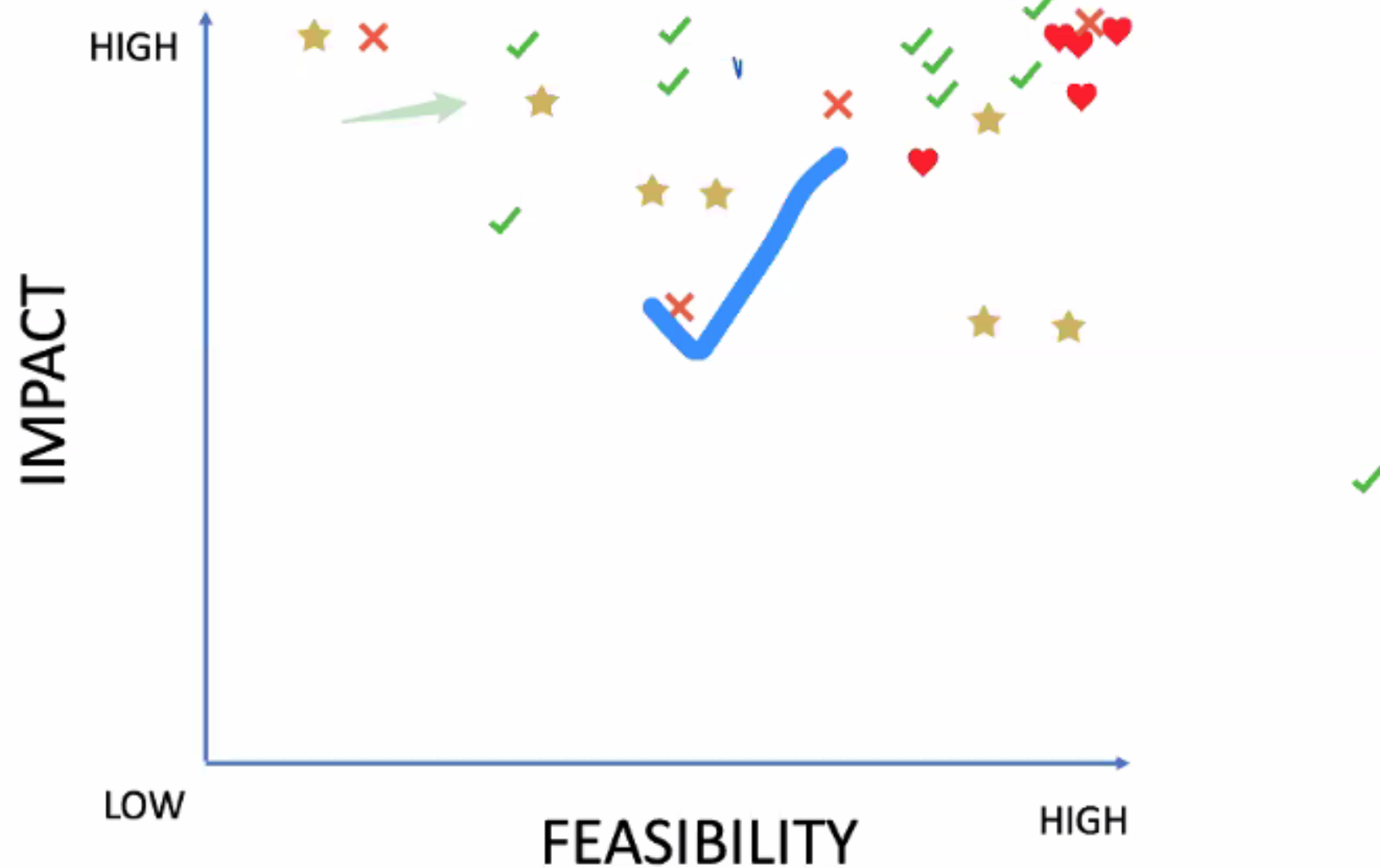
Recommendation NPPE 1: Energy Use Reduction Legislative Goal
Working Group: Nonprofits & Public Entities

Description
- Require state agencies, public colleges and universities, and public-school districts to
  1) develop a new energy conservation plan, and
  2) reduce their energy consumption by 10% by 2030, as compared to 2015 levels
- Would replace the 2008 legislative requirement is expiring at the end of 2020 (which required energy conservation plans and 20% energy use reduction by public entities by 2020, as compared to 2000 levels)

Feasibility
- Would require legislative action (and a legislative champion)
- Would not require additional resources
- Affected entities would continue to report their energy consumption to the SC Energy Office on an annual basis
- Energy Office already has the system in place to collect, analyze, and report entities' energy consumption data

Impact
- Reduce energy use, demand and save energy dollars
- Reduce emissions for improved health
- Build resilience to stress on energy supply networks & grid disruptions
- Retain more resources for improved resilience measures
- Neutral regarding equity

Timeline
- Would have to be adopted by a champion such as an environmental group
- Could not be introduced before January 2021, and would not pass until June 2021, at the earliest

Recommendation NPPE 1: Energy Use Reduction Legislative Goal
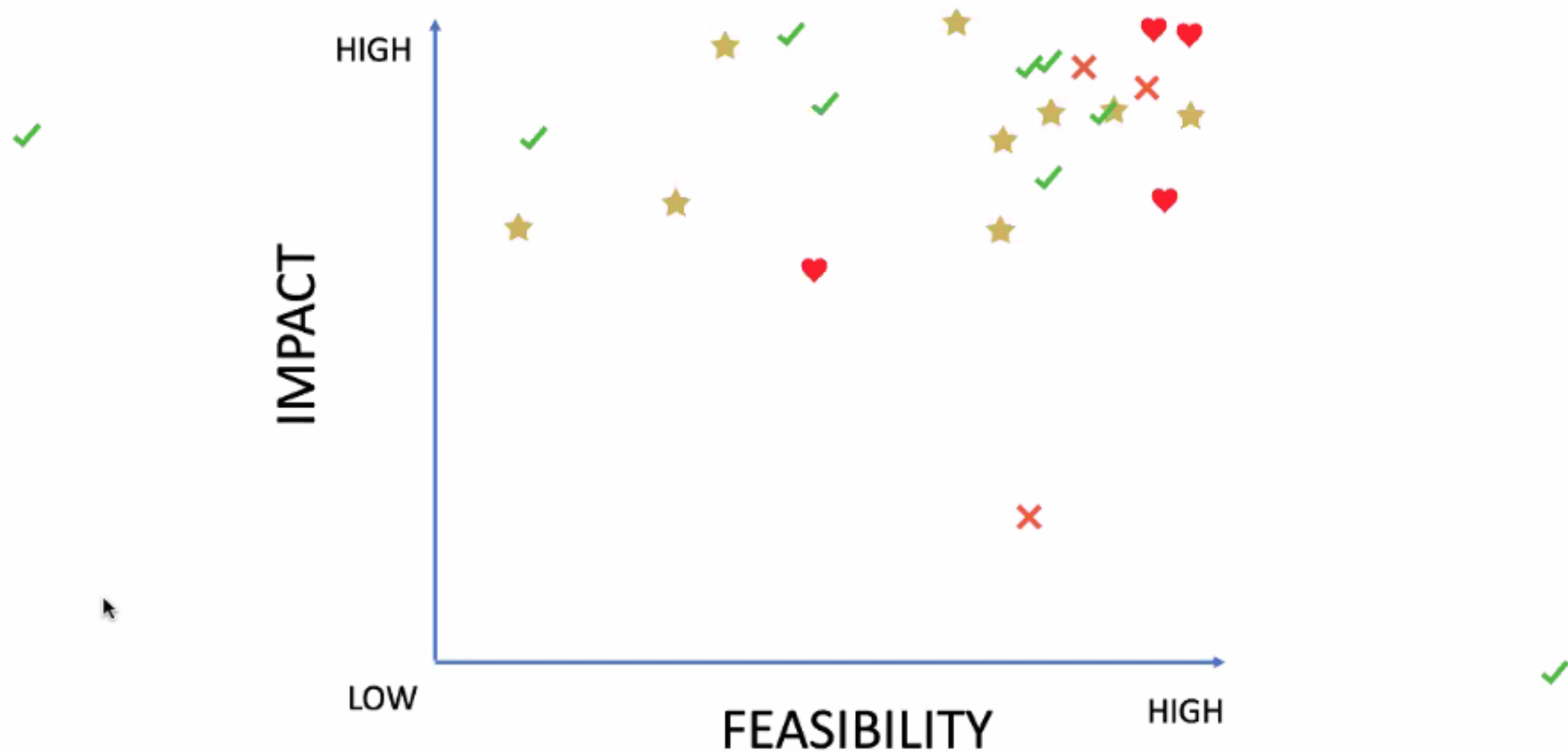
Recommendation NPPE 2: Legislative Change re Lighting
Working Group: Nonprofits & Public Entities

Description
- Update the section of the SC Code of Laws (Section 49-52-640) that is outdated pertaining to the replacement of incandescent bulbs with compact fluorescent bulbs for public entities
- Language in the code should be updated to require the use of LED and other more efficient technologies as they become available

Feasibility
- Would require legislative action (and a legislative champion)
- Would not require additional resources
- Would be a basic update/cleaning up of existing code; could be folded in with other legislative action

Impact
- Reduce energy use and demand and save energy dollars
- Reduce emissions for improved health
- Build resilience to stress on energy supply networks & grid disruptions
- Retain more resources for improved resilience measures
- Neutral regarding equity

Timeline
- Would have to be adopted by a champion such as an environmental group
- Could not be introduced before January 2021, and would not pass until June 2021, at the earliest

Recommendation NPPE 2: Legislative Change re CFLs
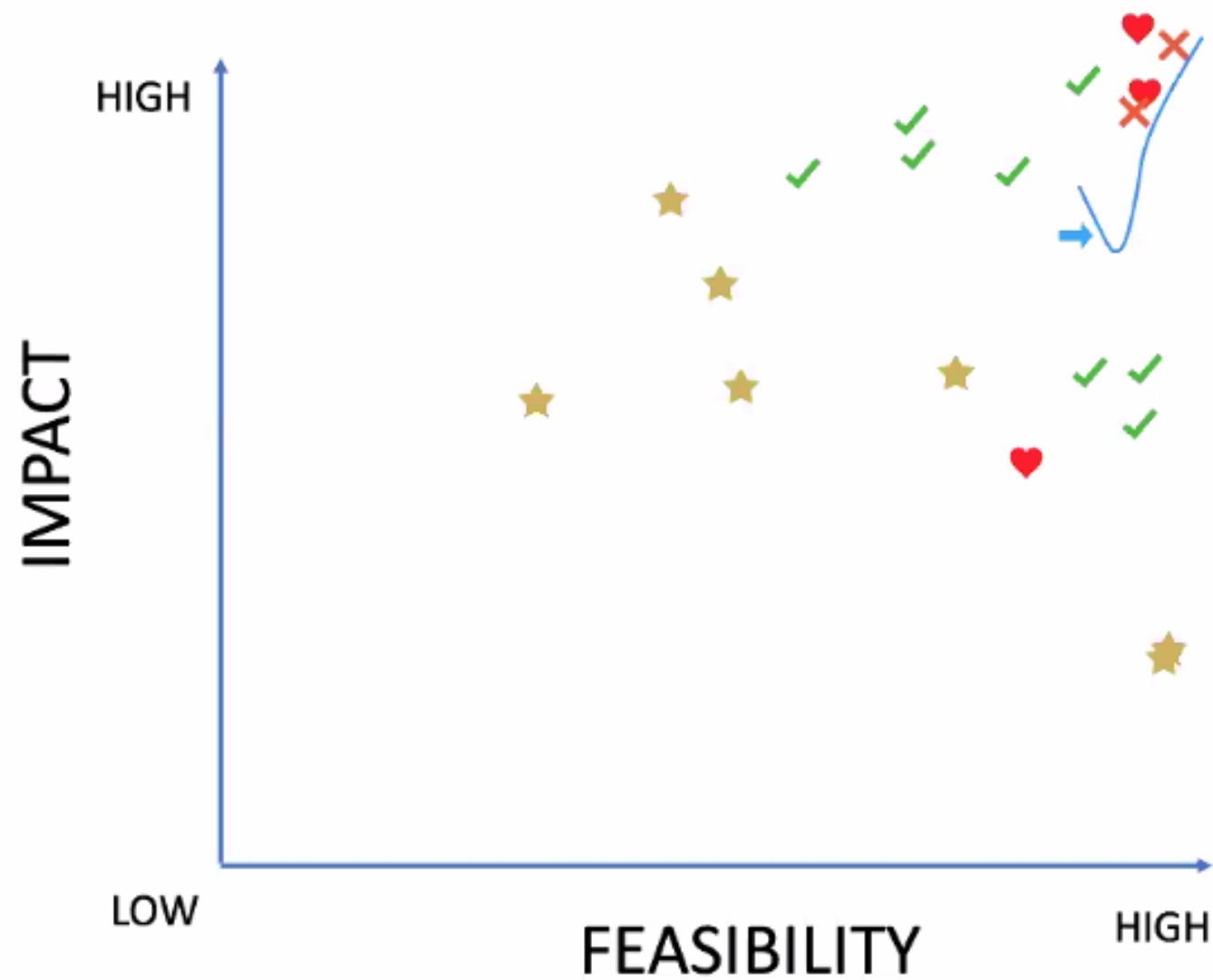
Recommendation NPPE 3: Allow Flexible Funding for EE Projects
Working Group: Nonprofits & Public Entities

Description
- Enable public entities to have some flexibility in funding for EE upgrades through the following:
  1) Prohibit an agency's budget from being reduced by more than __ % of its dollar savings from the implementation of EE projects, and
  2) Require South Carolina's public entities to utilize at least __ % up to 100% of the total dollar savings resulting from implementation of EE projects for future EE projects.

Feasibility
- Would require legislative action (and a legislative champion)
- Would not require additional resources
- Could be folded in with other legislative action

Impact
- Reduce energy use and demand and save energy dollars
- Reduce emissions for improved health
- Build resilience to stress on energy supply networks & grid disruptions
- Retain more resources for improved resilience measures
- Neutral regarding equity

Timeline
- Would have to be adopted by a champion such as an environmental group
- Could not be introduced before January 2021, and would not pass until June 2021, at the earliest

Recommendation NPPE 3: Allow flexible funding for EE projects

Recommendation NPPE 4: Require Separate Metering for New Construction/Major Renovations
Working Group: Nonprofits & Public Entities

Description
- Encourage public entities to install individual building meters when undertaking new construction or major renovation projects
  - A separate meter for each utility (e.g., electricity, natural gas, fuel oil, water, or energy products created through processing) shall be installed
  - Where possible, AMI (Automated Meter Infrastructure) meters should be installed
  - Not required for very small structures such as small storage sheds
- This recommendation contains 2 components: (1) Energy Office action and (2) legislative action

Feasibility
- 1st component is highly feasible, requiring Energy Office action through outreach/technical assistance
- 2nd component would require legislative action (and a legislative champion)
- Could be folded in with other legislative action

Impact
- Enable energy and water conservation through more effective assessment and management strategies
- Reduce energy use and demand and save energy dollars
- Reduce emissions for improved health
- Build resilience to stress on energy supply networks & grid disruptions
- Retain more resources for improved resilience measures
- Neutral regarding equity

Timeline
- 1st component could begin immediately. 2nd component would have to be adopted by a champion such as an environmental group
- Could not be introduced before January 2021, and would not pass until June 2021, at the earliest

# Recommendation NPPE 4: Separate Metering for New Construction / Major Renovations
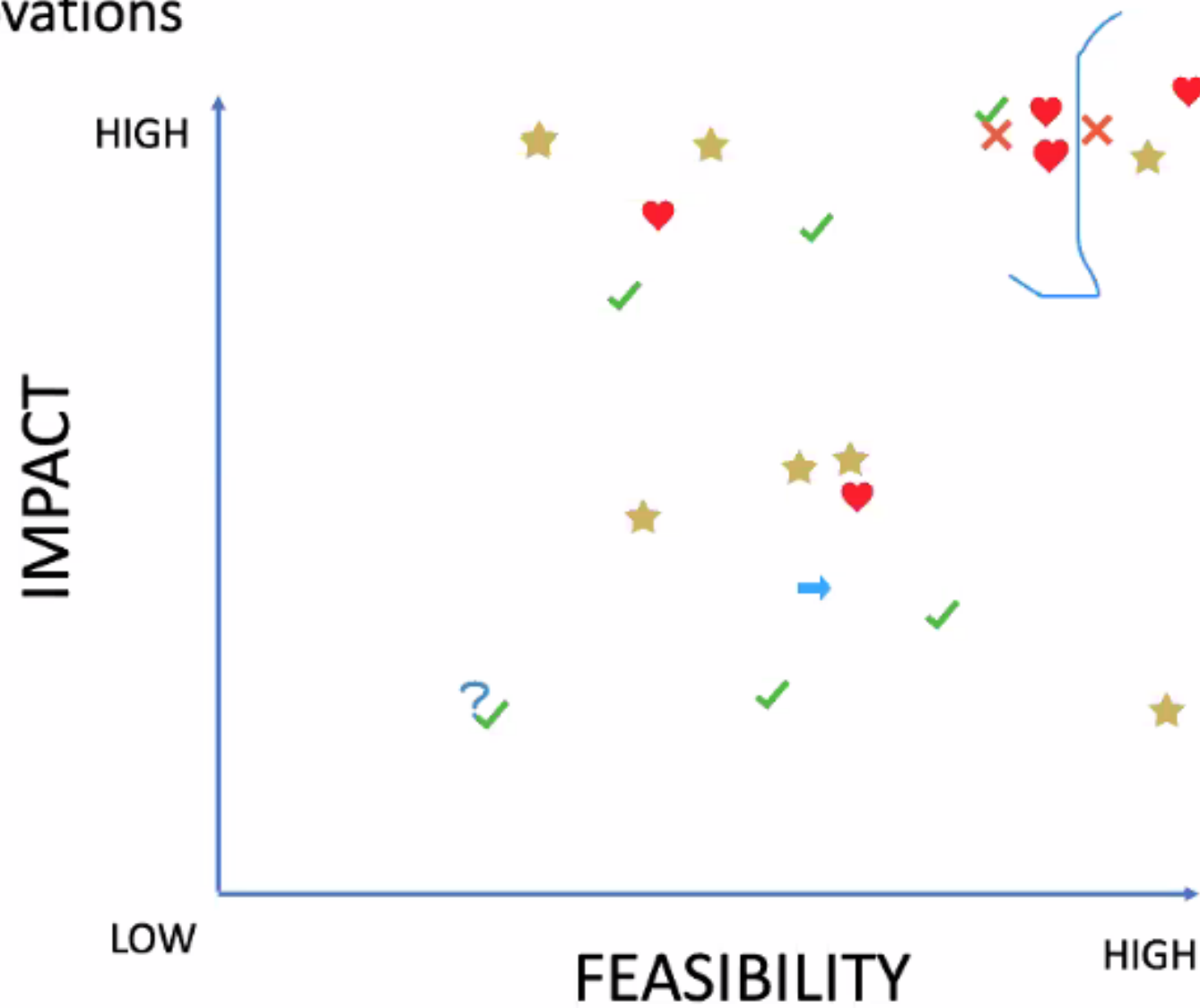
Recommendation NPPE 5: EE Guidelines for Leased Space
Working Group: Nonprofits & Public Entities

Description
- Develop guidelines and a checklist that public entities and non-profit organizations can employ to inform their decisions regarding energy efficiency of prospective leased space before signing a lease

Feasibility
- High feasibility
- Energy Office would serve as the lead organization on this effort to develop and vet the guidelines and checklist with stakeholders representing the affected public entities and non-profits
- Energy Office would also develop these guidelines in consultation with resources provided through the National Association of State Energy Officials, Southeast Energy Efficiency Alliance, and others

Impact
- Increase public entities' attention on the reduction of energy use and saving energy dollars
- Reduce emissions for improved health
- Build resilience to stress on energy supply networks & grid disruptions
- Retain more resources for improved resilience measures
- Neutral regarding equity

Timeline
- The development of a checklist to be used by prospective tenants can be created by the end of 2020 and distributed in early 2021

Recommendation NPPE 5: EE Guidelines for Leased Spaces
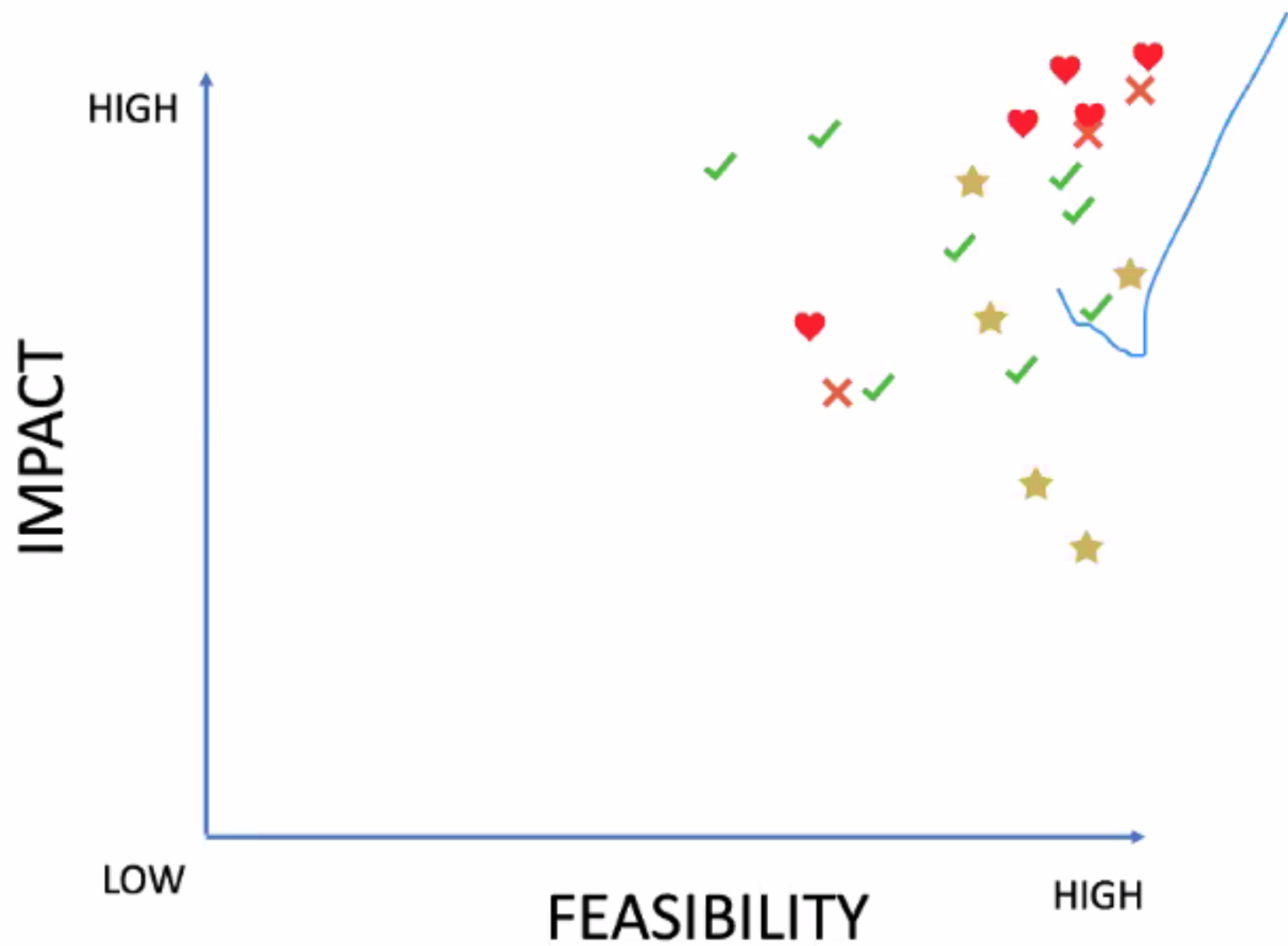
Recommendation UP 1: C&I Opt-Out/Self-Direct Study
Working Group: Utility Programs

Description

- Study committee to analyze Commercial and Industrial (C&I) opt-out reasons, opportunities, and program needs.
- Analyze best practices nationally.
- Evaluate self-direct programs as an option (C&I customers "self-direct" their EE program dollars).
- Special categories: landlord/tenant, complacent industrials, and industrials that routinely contribute to peak event loads.
- Problem addressed: Opting out is fairly easy and may leave cost-effective efficiency investments on the table.
- If program improvements are identified, C&I customers could represent significant efficiency gains due to their size.

Overview of Large-Customer Self-Direct Options for Energy Efficiency Programs
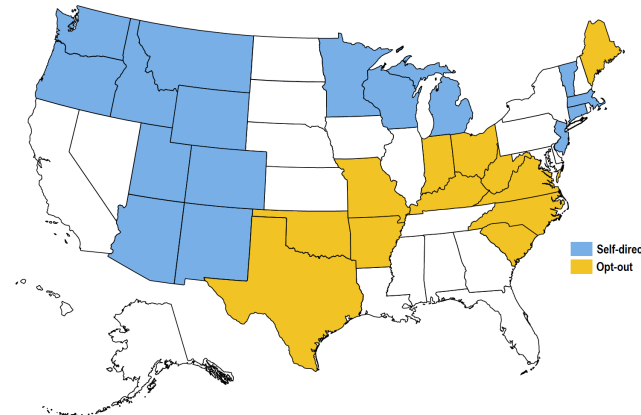
Self-direct
Opt-out

NOTES Status of large-customer self-direct and opt-out programs, by state. Status current as of August 1, 2015. Note that plans for self-direct programming are under way in New York. Earlier in 2015, the New York Public Service Commission directed electric utilities to offer a self-direct program for commercial and industrial customers by 2017.

Recommendation UP 1: Opt-Out/Self-Direct Study
Working Group: Utility Programs

Feasibility
- Feasibility and ease are both fairly high.
- Study could be initiated by the Office of Regulatory Staff with input and/or assistance from the SC Public Service Commission, the SC Department of Commerce, the SC Manufacturers Alliance, the Large Energy Users Group.
- Other stakeholders should include a wide range of businesses with different usage profiles, including gas customers as well as outside advocacy groups who maintain an interest in PSC EE/DSM dockets and the Utility Consumer Advocate.

Impact
- Cost-effective C&I efficiency investments could represent significant low-hanging fruit due to the sheer size of the customers (but more study is needed).
- Benefits: GHG and emissions reductions, coal ash reductions. Program costs must also be fairly and accurately assessed for effectiveness.

Timeline
- Implementation: Study – immediate, lasting 6 months-1 year; Program changes: 1-2 years
- COVID-19 impact: none
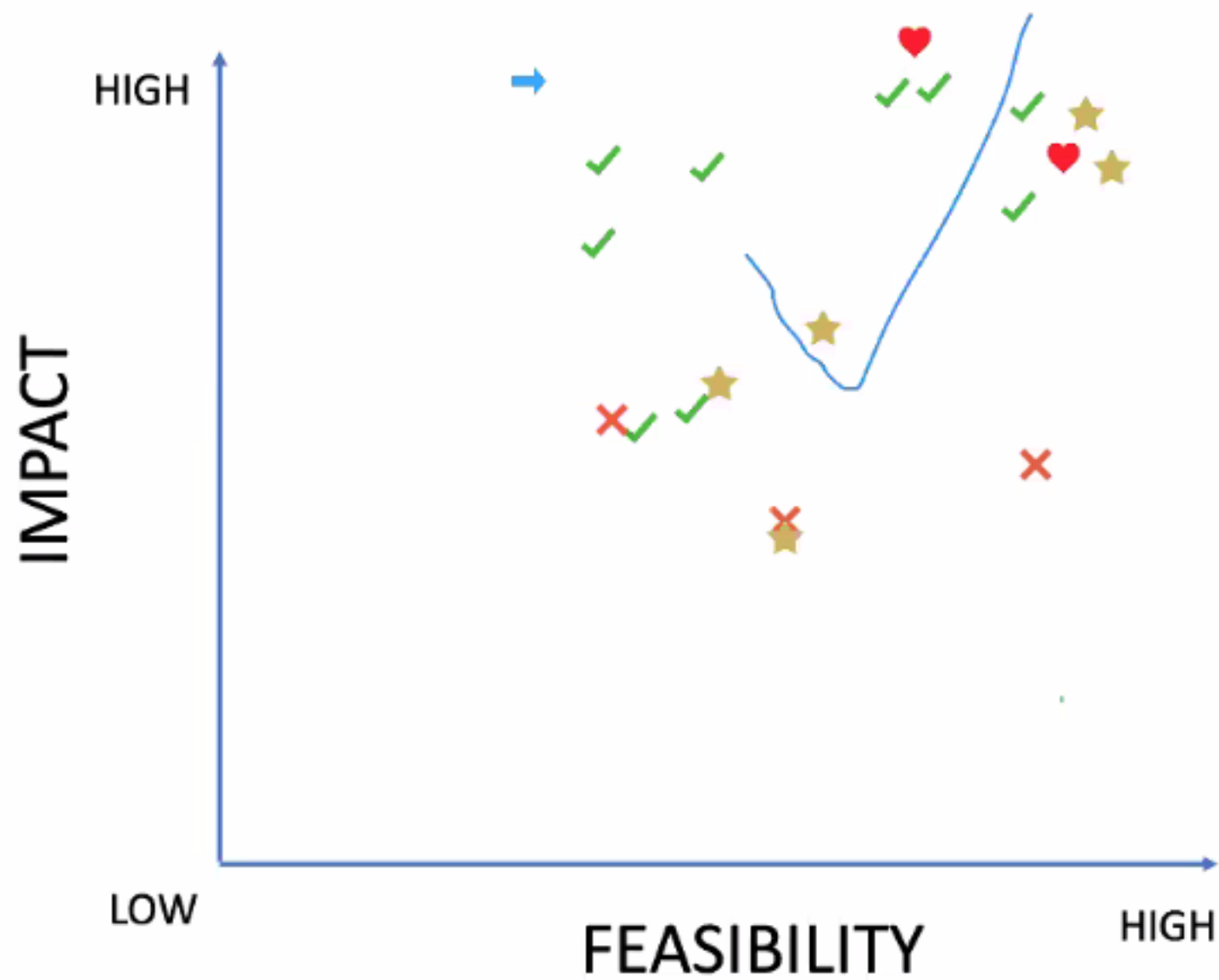
Recommendation UP 1: Opt-Out/Self-Direct Study

Recommendation UP 2: Energy Efficiency Resource Standard (EERS)
Working Group: Utility Programs

Description

- Develop an Energy Efficiency Resource Standard (aka Portfolio Standard).
- Develop a mechanism to set an annual EE target for investor-owned utilities, Santee Cooper, electric cooperatives, and gas local distribution companies (LDCs).
- Problem addressed: Current EE gains have slowed as easy and proven measures (such as LED lighting) have approached saturation.
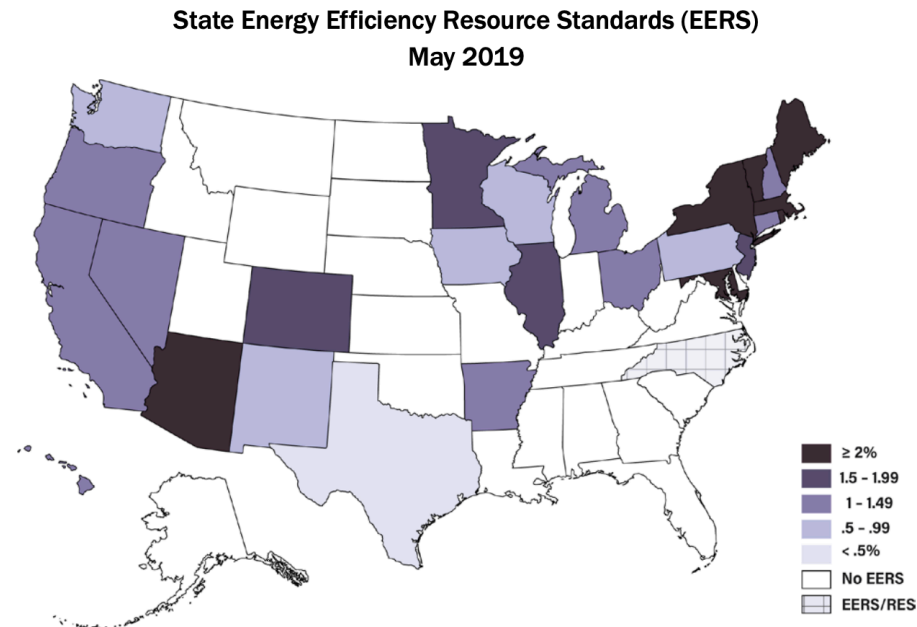- No SC utility is required to achieve an energy efficiency target.

State Energy Efficiency Resource Standards (EERS)
May 2019

Legend:
- ≥ 2%
- 1.5 – 1.99
- 1 – 1.49
- .5 – .99
- < .5%
- No EERS
- EERS/RES

Figure 1. States with electric EERS policies in place (as of May 2019).

Recommendation UP 2: Energy Efficiency Resource Standard (EERS)
Working Group: Utility Programs

Feasibility
- Currently, this recommendation ranks low on feasibility and ease. Utility stakeholders note several difficulties, including complicating programs for multi-state utilities, the impact appliance and building code efficiencies have already had on achievable potential, and the impact that economic downturns have on achieving a target in a given year.
- An EERS, if developed, would be implemented in by the SC PSC, overseeing compliance dockets.
- Stakeholder involvement must be broad, including the utilities, the Office of Regulatory Staff, a variety of customers from all segments, the Large Enery Users Group, the Utility Consumer Advocate, and parties who routinely engage in PSC EE/DSM dockets.

Impact
- The degree of impact would depend on the standard set for each utility and their potential to achieve the target each year.
- Benefits include reduced GHG and air emissions, decreased production of coal ash, decreased energy burden, increased EE-related employment, and delayed or reduced costs for new generation.

Timeline
- An EERS could be mandated by either the SC Legislature or the SC Public Service Commission but would require 1-2 years of effort and collaboration.
- COVID-19 impact: none
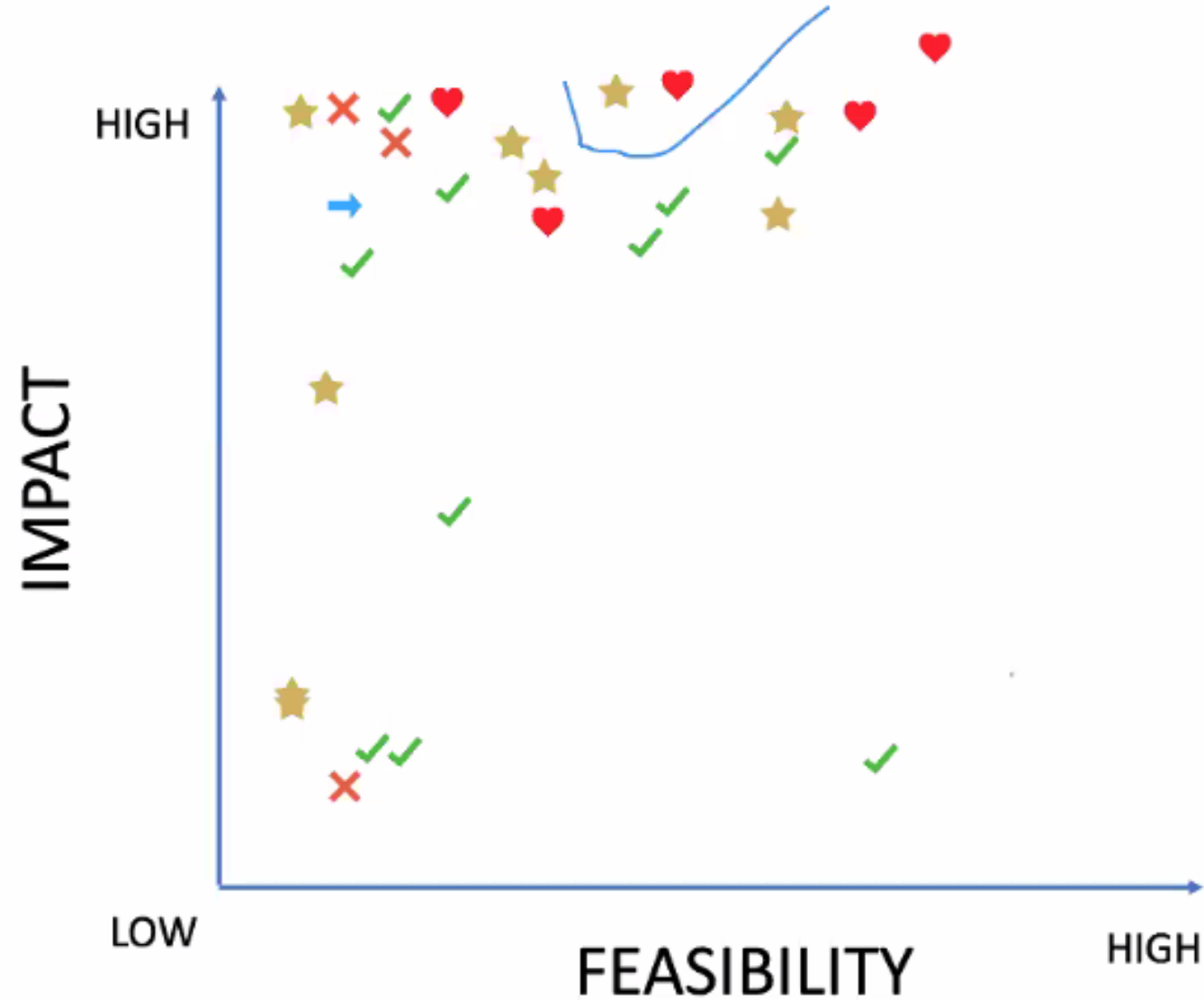
Recommendation UP 2: Energy Efficiency Resource Standard (EERS)

Recommendation UP 3: Cost-Effectiveness Testing Study
Working Group: Utility Programs

Description

- Study committee would compare pros and cons to the utility, the ratepayer, and the state as a whole of various methodologies.
- Committee would recommend the most appropriate test(s), including the option of a customized test.
- Committee would determine if adopting a uniform test statewide would be advantageous.
- Problem addressed: Only PSC-regulated utilities are required to utilize cost-effectiveness testing but methodology is not uniform. Current tests include the Utility Cost Test and the Total Resource Test, but other tests exist as do hybrids. Further, as grid-integrated technology evolves, current tests may not accurately account for the costs and benefits (such as time and location benefits as well as speed, precision, duration and response time).
- If a revised testing protocol results in a more accurate accounting of costs and benefits, that then increases measure availability, additional efficiency gains can be achieved.

Recommendation UP 3: Cost-Effectiveness Testing Study
Working Group: Utility Programs

Feasibility

- As a collaborative study, this recommendation ranks high on feasibility and implementation. Achieving some form of final consensus in the study recommendations may be more challenging.
- Implementing organization could be the Office of Regulatory Staff
- Stakeholder involvement must be broad, including the utilities, the Office of Regulatory Staff, a variety of customers from all segments, the Utility Consumer Advocate, and parties who routinely engage in PSC EE/DSM dockets.

Impact

- By taking a fresh and analytical look at cost-effectiveness testing options in light of emerging grid-interactive technologies, the outcomes of this study could dramatically improve the efficacy of EE in SC by improving accuracy of the assessment process.
- Benefits include reduced GHG and air emissions, decreased production of coal ash, decreased energy burden, increased EE-related employment, and delayed or reduced costs for new generation.

Timeline

- This study should be initiated by the PSC, as they will need to approve any changes to cost-effectiveness testing. It could be initiated at any time and would likely take a year.
- COVID-19 impact: none
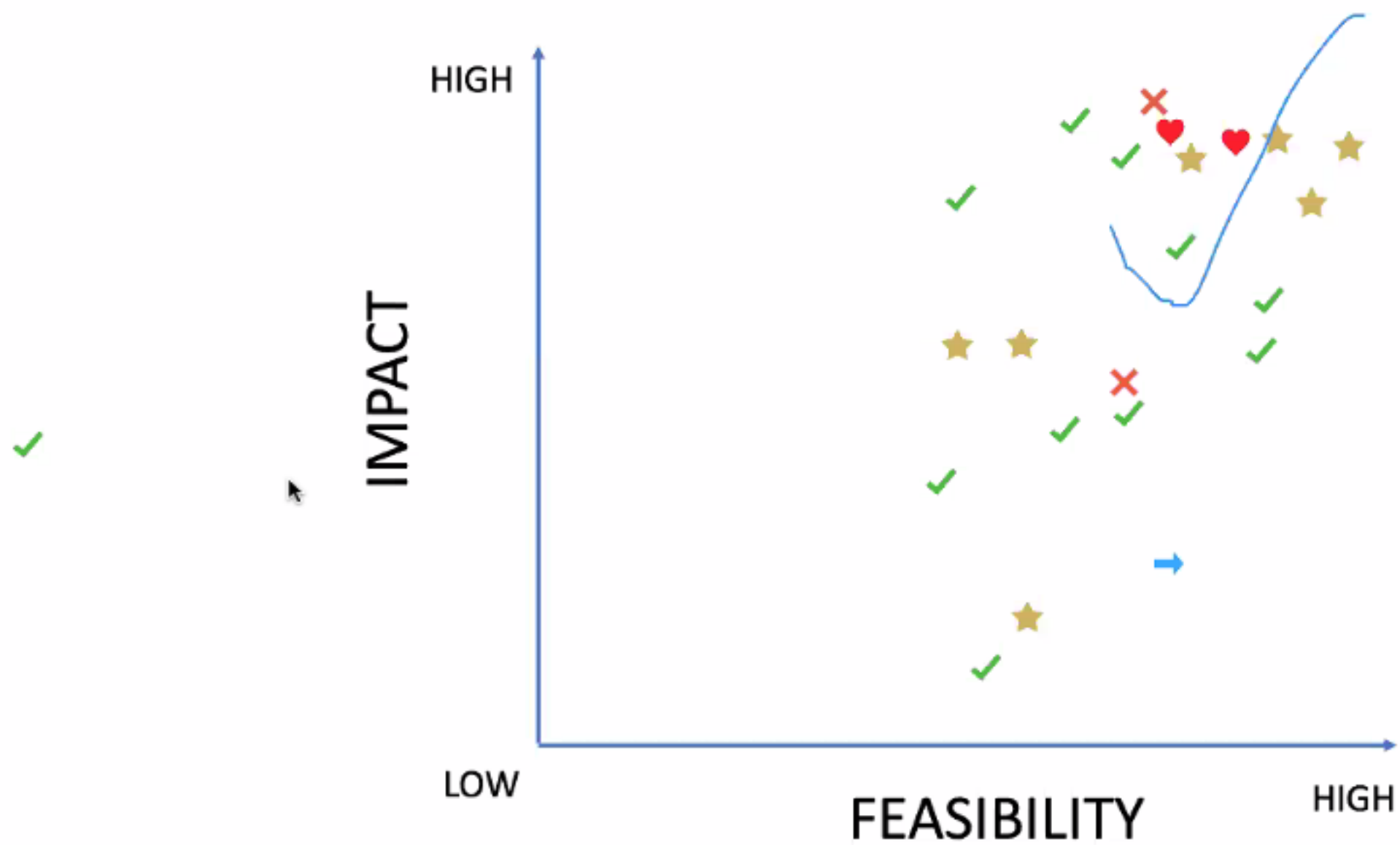
Recommendation UP 3: Cost-Effectiveness Testing Study

Recommendation UP 4: Technical Reference Manual (TRM)
Working Group: Utility Programs

Description

- Develop and adopt a Technical Reference Manual (TRM) that standardizes savings metrics for defined EE measures.
- TRM would contain agreed-upon, transparent, and consistent inputs and formulas for calculating electric savings, peak demand savings, and natural gas savings for commonly available EE measures.
- TRM would ideally streamline and simplify approval of some EE measures, reducing administrative and engineering costs.
- TRM could, ideally, provide some additional clarity as to what "cost-effective" means in SC.
- Problem addressed: Currently, cost-effectiveness testing is not consistent across utilities and the evaluation, measurement and verification process (EM&V) can be daunting for non-regulated utilities. Further, as some measures grow more complex (grid-interactive), simplifying others could be helpful.

Recommendation UP 4: Technical Reference Manual (TRM)
Working Group: Utility Programs

Feasibility
- This recommendation will be challenging to implement. It could be expensive, the utilities have concerns, and addressing multi-state utility issues is challenging.
- A TRM could be initiated by the PSC and then contracted out by the Office of Regulatory Staff. It is unlikely it could be accomplished in-house due to its complexity and time requirements.
- Stakeholders should include the utilities (regulates IOUs, Santee Cooper, the electric cooperatives and the municipal utilities), the Utility Consumer Advocate, outside advocacy groups and EE/DSM intervenors, a cross-section of residential and C&I customers, and efficiency measure providers and EM&V experts (in addition to a qualified consultant).

Impact
- A TRM is an attempt to simplify parts of a complex process for regulated utilities while providing an instruction manual, of sorts, for non-regulated utilities (thereby increasing the likelihood of those utilities adding EE measures).
- If a TRM reduces the cost of certain EE measures, customers benefit. Additional benefits of a TRM that effectively increases access to EE measures include decreased GHG and air emissions, reduced coal ash production, increased EE jobs, and reduced energy burden.

Timeline
- After initiation by the PSC and an RFP process, the process might take 18 months.
- COVID-19 impact: none

Recommendation UP 4: Technical Reference Manual (TRM)
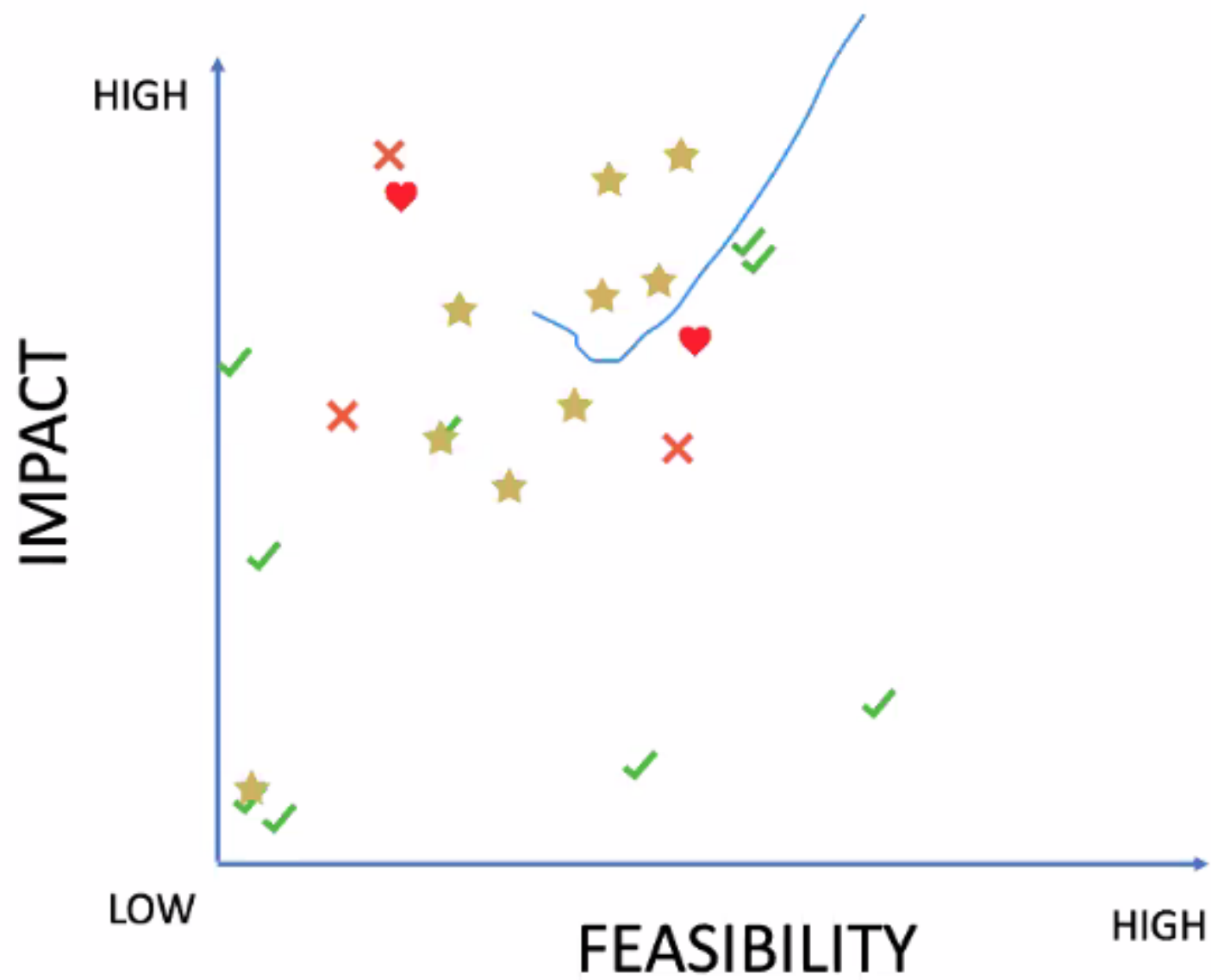
Concluding Remarks

Thank you for your participation!