



## PROGRAM VISUALIZATIONS:

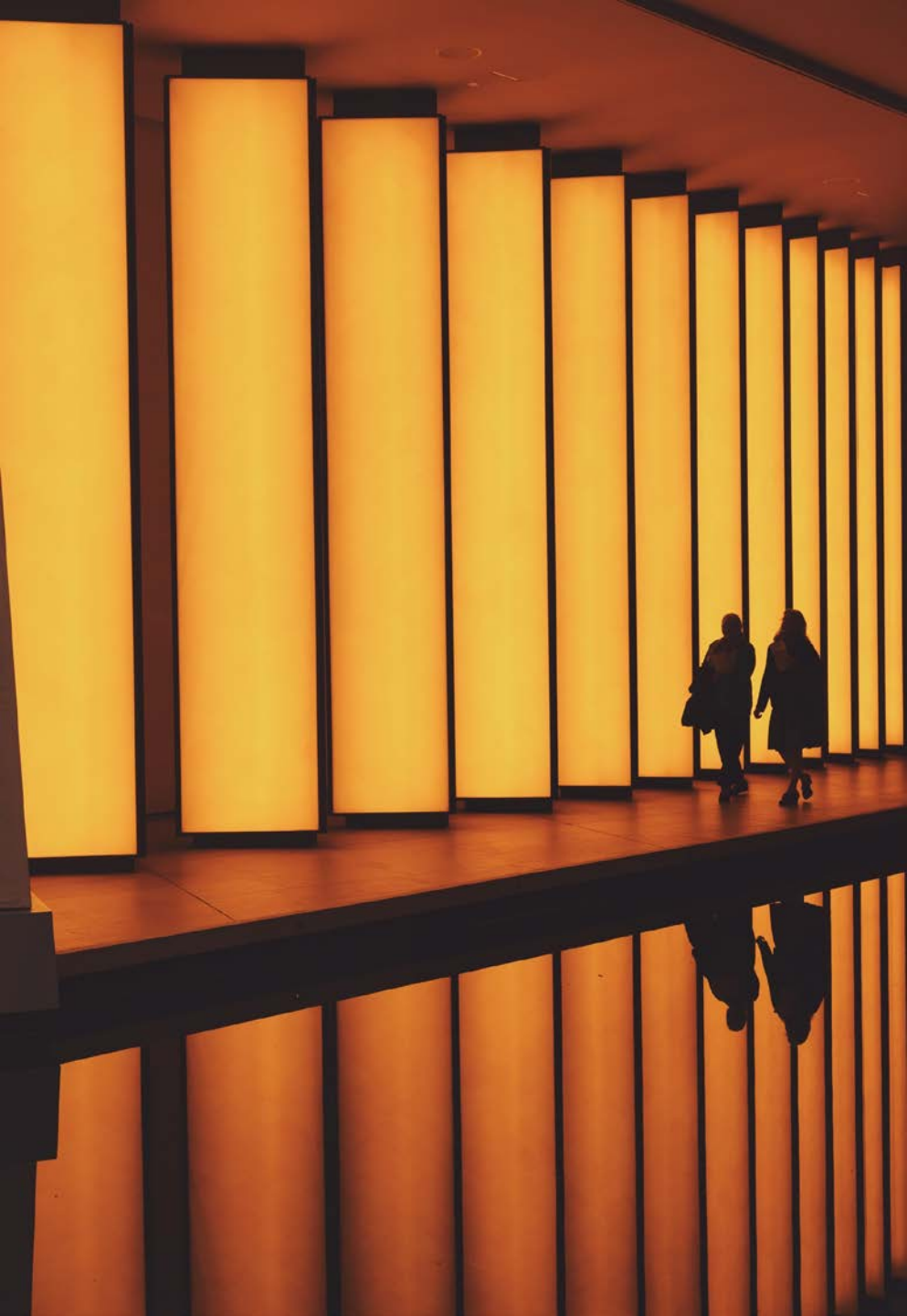
### WHAT TO USE AND WHEN

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2019 IEPEC





# AGENDA

- 1. Introduction**
2. Inventory of Program Mapping Tools
3. Mapping Example
4. Wrap Up & Questions



# INTRODUCTION

## BACKGROUND

- Program mapping visualizations are important tools for analysis and to quickly show meaning.
- There are many types of program mapping tools and each have their own purpose.

## OBJECTIVE

- Review 6 types of program mapping tools.
- Show an example of how program mapping was used to support NTG research.





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# 1. PROGRAM LOGIC MODEL

*“THE WHY”*

## WHAT IS IT?

Define the **purpose** of a program

## KEY QUESTION:

*Is program implemented as designed?*



## 2. PROGRAM INFLUENCE MAP

*“THE INFLUENCE”*

### WHAT IS IT?

Define intended  
**influence** of a  
program

### KEY QUESTION:

*Is program influencing  
the market as  
intended?*



Market  
Barriers



Program  
Activities



Desired  
Market  
Influence

### 3. MARKET MAP

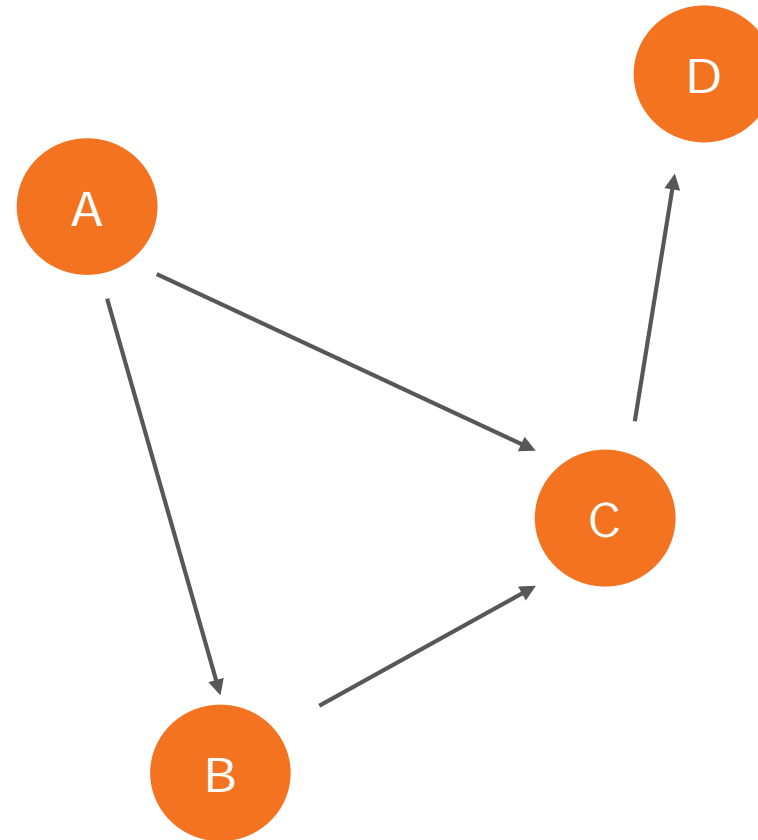
*“THE WHO”*

#### WHAT IS IT?

Define relationships between market actors

#### KEY QUESTION:

*Who are key actors influencing the market?*



## 4. PROGRAM PROCESS MAP

*“THE WHAT”  
(INTERNAL)*

### WHAT IS IT?

Define **internal**  
implementation  
steps

### KEY QUESTION:

*What opportunities  
exist for process  
improvements?*





## 5. CUSTOMER JOURNEY MAP

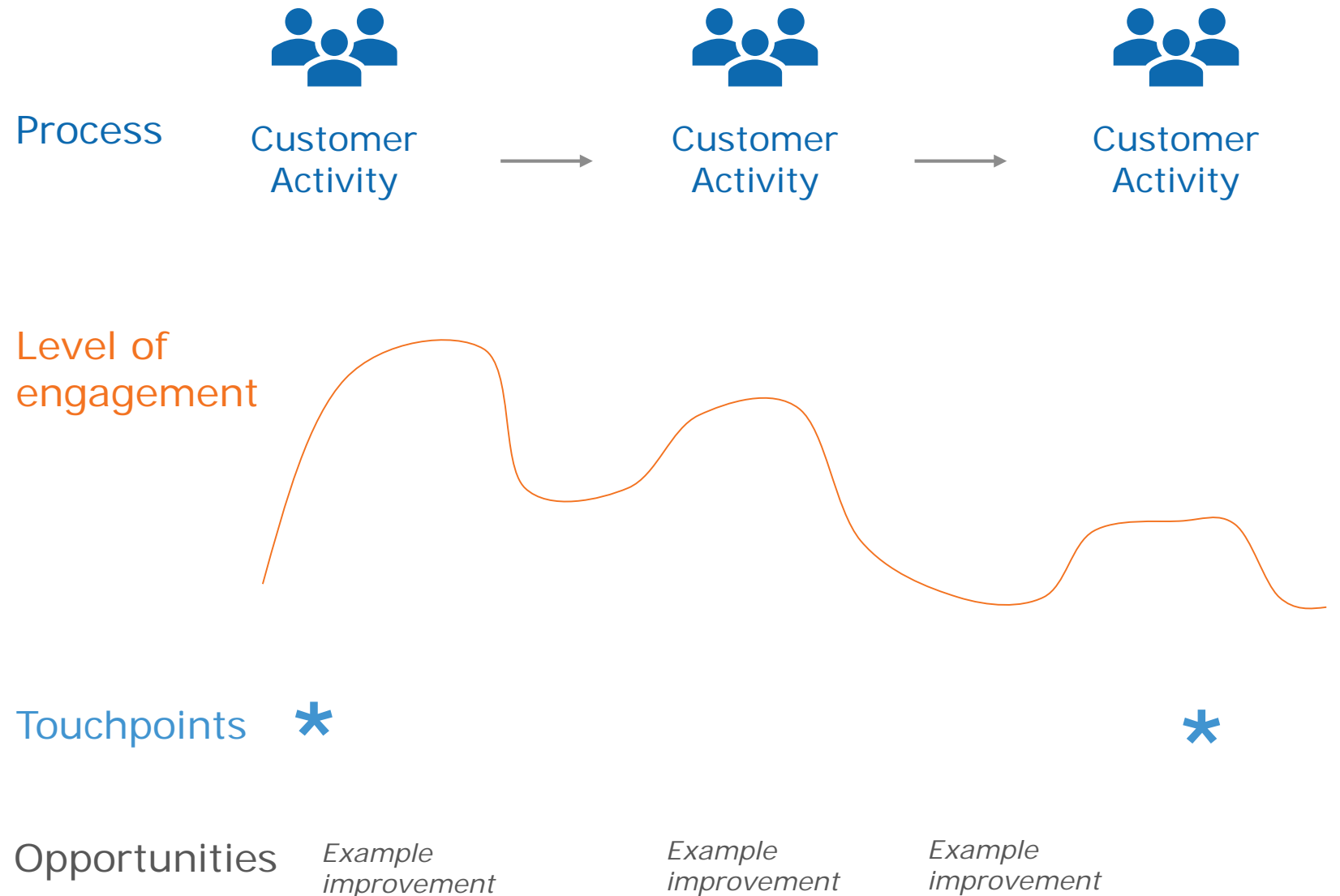
*“THE WHAT”  
(EXTERNAL)*

### WHAT IS IT?

Define **customer** actions in a program

### KEY QUESTION:

*How do customers interact with a program?*



## 6. CUSTOMER EXPERIENCE MAP

### “THE EXPERIENCE”

#### WHAT IS IT?

Define experiences with a **subject** (not program-specific)

#### KEY QUESTION:

*Where can a program impact a customer experience?*



Duration

*Time intervals*



Physical experiences



Emotional experiences



Communications



## AN INVENTORY OF 6 PROGRAM MAPPING TOOLS

<b>TOOL</b>	<b>WHAT IS IT?</b>	<b>WHY USE IT?</b>
PROGRAM LOGIC MODELS	<b>Purpose</b> of a program	<i>Is program implemented as designed?</i>
PROGRAM INFLUENCE MAP	Intended <b>influence</b> of a program	<i>Is program influencing the market as intended?</i>
MARKET MAP	<b>Relationships</b> of market actors	<i>Who are key actors influencing the market?</i>
PROGRAM PROCESS MAP	<b>Internal</b> implementation steps	<i>What opportunities exist for process improvements?</i>
CUSTOMER JOURNEY MAP	<b>Customer</b> actions in a program	<i>How do customers interact with a program?</i>
CUSTOMER EXPERIENCE MAP	Experiences with a <b>subject</b> (not program-specific)	<i>Where can a program impact a customer experience?</i>



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## EXAMPLE: DATA CENTER EFFICIENCY

### DATA CENTER EFFICIENCY

- Offers prescriptive and custom rebates for various high efficient equipment
- Offers efficiency studies to identify opportunities

### PRELIMINARY NET-TO-GROSS RESULTS VARIED

- Offering was highly influential for some participants but not all.
- On average, *reduced operating costs* and *prior experience* with equipment were most influential in their decision.
- Frequent participants reported *less* influence overtime.





Program staff  
worked closely  
with  
customers



Customers were  
installing energy  
efficient  
equipment



*Need to visually map links between  
Xcel Energy touchpoints and customer actions*

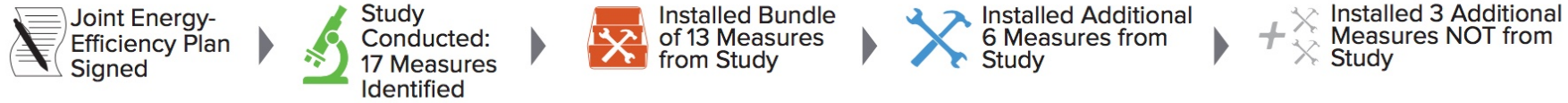
### ***PURPOSE OF RESEARCH:***

- Understand when Xcel Energy could most consistently influence energy efficiency decisions.
- Establish metrics to help track influence on an ongoing basis.

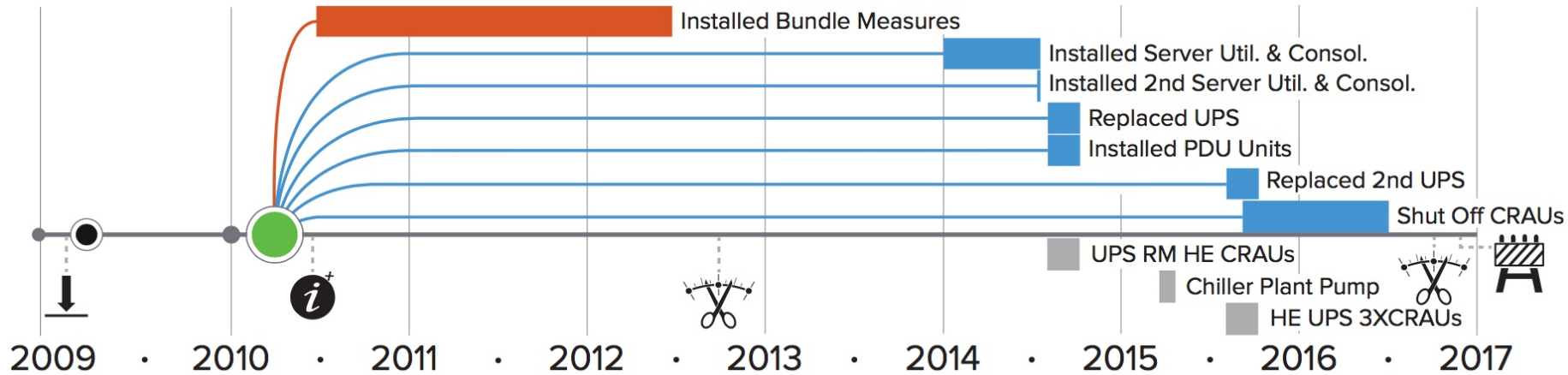


# ENERGY EFFICIENCY MAP: CUSTOMER 1

## MILESTONES



## TIMELINE



*Evidence of a link*


*Evidence of link is missing*

# ENERGY EFFICIENCY MAP: CUSTOMER 2

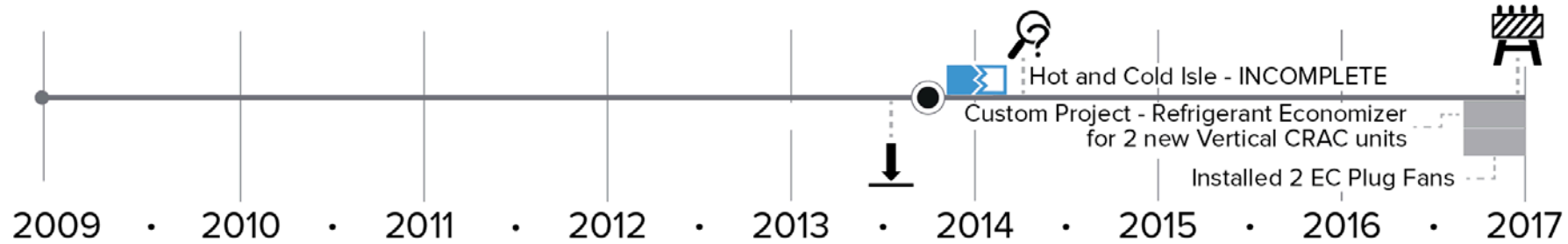
## MILESTONES

 Joint Energy-Efficiency Plan Signed

 Attempt to Install Custom Project – INCOMPLETE

 Completed 2 Projects Unrelated to a Study

## TIMELINE

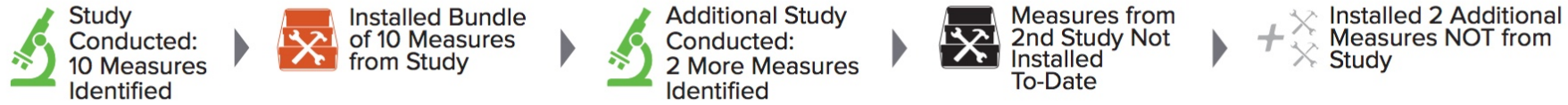


*Evidence of link is missing*

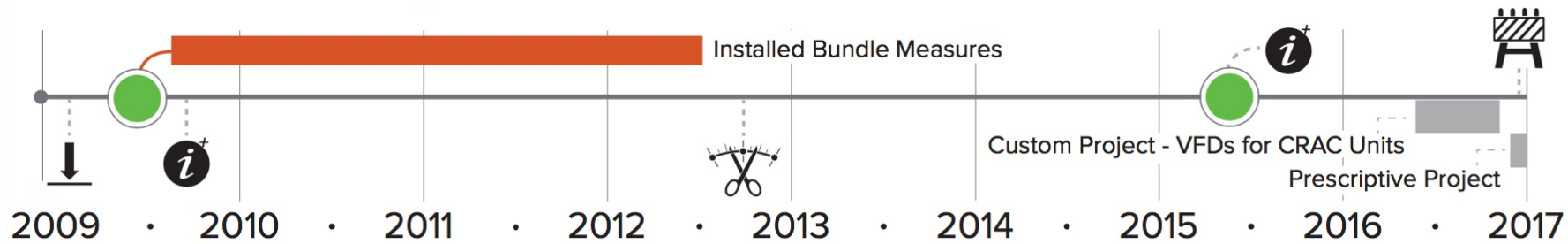


# ENERGY EFFICIENCY MAP: CUSTOMER 3

## MILESTONES



## TIMELINE



} Evidence of a link

} Evidence of link is missing

## KEY FINDINGS FROM DATA CENTER MAPPING

- Maps illustrate a need for greater documentation of customer engagement.
- Customer engagement documentation can help utilities substantiate influence, lowering risk that customers may forget utility influence over time.
- Maps illustrated touchpoints Xcel Energy Staff could leverage to collect information to better understand barriers, influence decision-making, and identify continuous improvements.

*Clear documentation is critical  
in fast changing and complex environments  
like data centers.*





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DEFINE YOUR OBJECTIVES

AND

DESIGN TO THEM

# THANK YOU

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