

Non-Wire Alternatives – Pilot Overview

Kevin Stewart - MEEA 2019

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DTE Non-Wire Alternatives Pilot

Overview:

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DTE Non-Wire Alternatives – Pilot Objectives and Overview

Pilot Objectives

1. Analyze the amount, duration, and timing of the energy savings and peak load targets. Determine the mix of customers in the targeted areas, and assess the potential for achieving targeted savings
2. Develop an economic framework and analytical methodology
3. Develop a plan for exceeding the deferral target while still being cost effective
4. Seek to exceed the target by increasing customer participation
5. Review an evaluation plan to assess effectiveness and identify lessons learned
6. Launch/Deploy pilot field testing
7. Develop a final report after the pilot

Pilot Overview

DTE is utilizing geographically targeted energy efficiency and demand response measures to field test load relief as non-wire alternatives. We are using a two-phased approach.

Phase I – Hancock Substation:

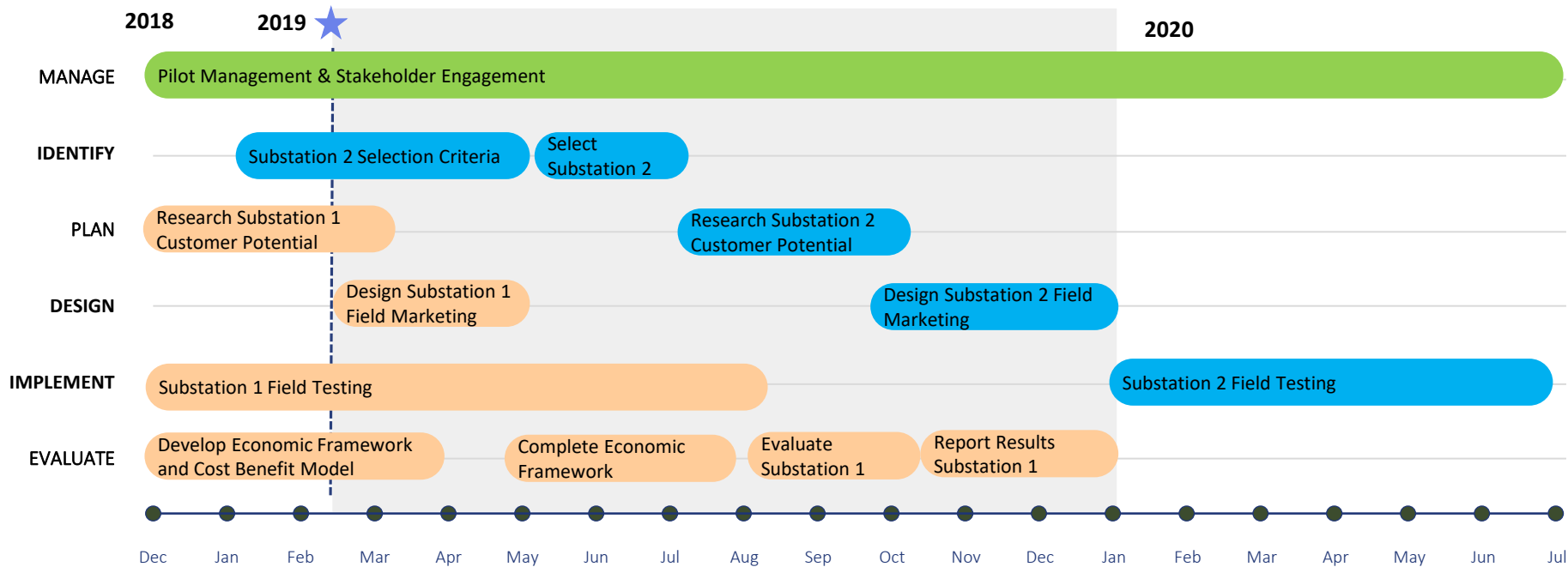
- Spring 2018 thru Summer 2019
- Focused on Hancock Substation
- Develop economic frameworks, analytical methodologies and field test deployment of select measures and program ideas
- Goal is to develop “learnings” from a real-world “laboratory” to apply to a Phase II. Initiative not intended to necessarily achieve cost-effective deferral of substation investment, or to attempt to test maximum deployment of NWA options

Pilot Overview

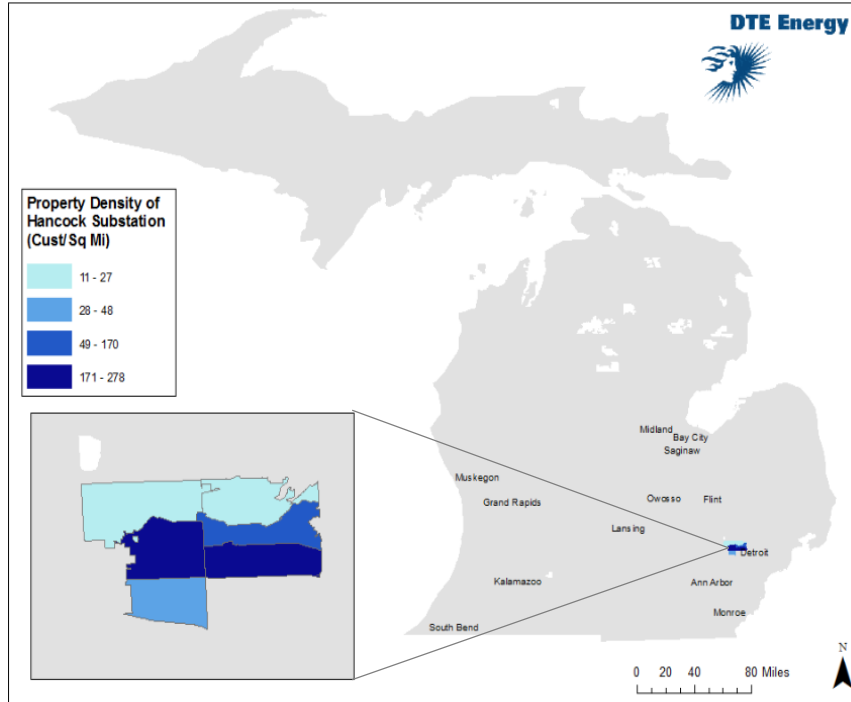
Phase II – Substation TBD:

- Beginning early 2019, timeline to be determined
- Select second substation, scale development of NWA strategies, leverage Phase I lessons
- Goal to assess ability to cost-effectively defer substation upgrades

Pilot Timeline



Phase I: Hancock Substation Region



Customer Premises

- 1,161 Commercial
- 7,589 Residential

City	Premises	Total Population
West Bloomfield	4,358	65,771
Commerce Township	2,778	42,529
Walled Lake	1,063	7,089
Novi	467	59,715
Wolverine Lake	84	4,312
Total	8,750	179,416

Phase I: Hancock Substation Peak Load

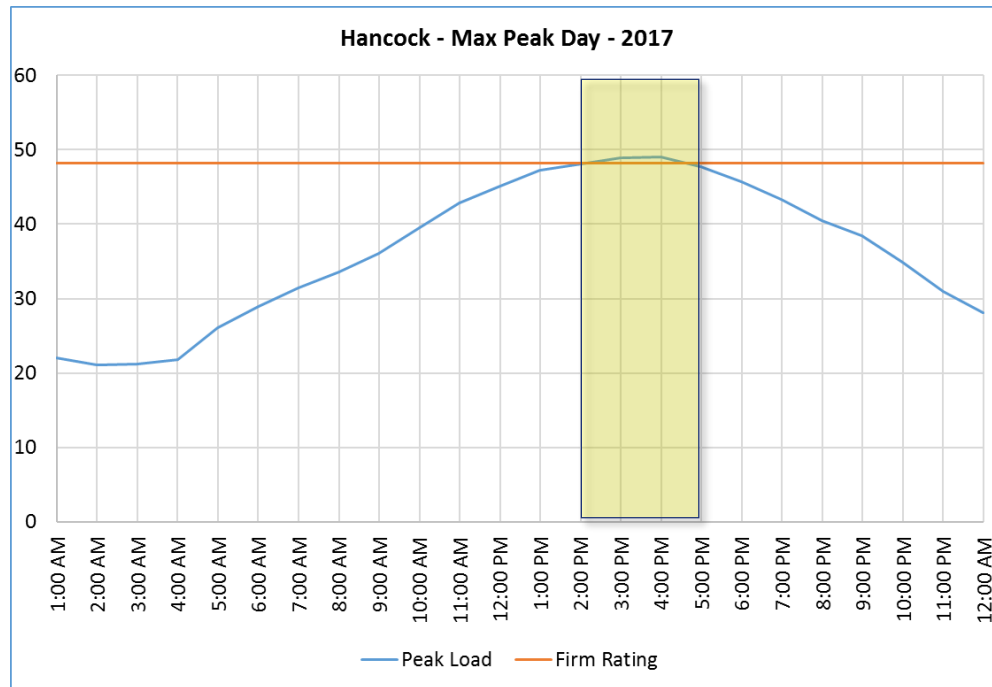
Hancock Substation

- Commerce Township, MI

0.5 MVA (450 kW) over designed capacity, historically

Due to strong load growth, projected to be **10 MVA+** over its designed rating in the next **3-5 years**

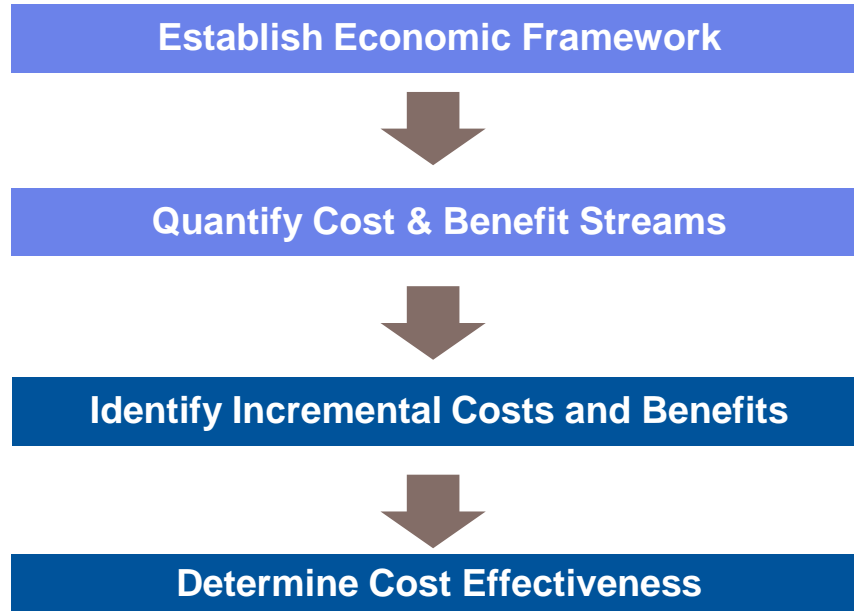
- 2pm-5pm Peak Window (2017)
- **Initial EWR Target: 0.1 MVA** of Load Relief (90kW)
- **Initial DR Target: 0.4 MVA** of Load Relief, Interruptible A/C Switches (IAC) (360kW)





Economic Framework - Implementation Overview

Economic Framework Plan



Economic Framework Plan

Building consensus on benefit and cost streams for cost effectiveness analysis

Benefit / Cost Streams	Utility Cost Test
Avoided Generation Capacity Costs	Benefit
Avoided Energy	Benefit
Avoided Transmission Capacity Infrastructure	Benefit
Avoided T&D Losses	Benefit
Avoided Distribution Infrastructure	Benefit
Avoided O&M	Benefit
Avoided Ancillary Service Costs	Benefit
Utility Incentives	Cost
Program Administration Costs	Cost
Incremental T&D Costs	Cost



Phase I – Residential Implementation Overview

ICF – Phase I – Residential Marketing Channels

ICF Energy Ambassadors

- Liaison between program participants and implementation teams
- Provides Customer Service, QA and IT support

Door Hangers

- Direct Mail marketing collateral that will feature a participation Promo Code
- Delivers promotion direct to customers addresses and supports messaging to customers who have received it electronically

Promotional Emails

- Cost-effective awareness. Features program info, how to enroll and Promo Code
- Email provides tracking of message success

Engaged Trade Ally Network

- Offers education, promotion and TRUST for customers
- Contractors notified of promotion to better support customers in that area

ICF – Phase I – Res. Door Hanger

Three ways to save.

Energy Efficiency Program	Standard Rebate	Your Rebate
DTE Energy Air Conditioner Diagnostic Tune-Up	\$50	\$100
Central Air Conditioner Replacement*	\$150-\$400	\$300-\$800
ECM Blower Motor Furnace Replacement**	\$50	\$100

**Minimum 15 SEER required*

***Factory installed in new gas furnaces only*

You must be a DTE Energy residential electric customer to participate. Offer applies only to customers who have received this promotion directly from DTE.

DTE

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and white line
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EXCLUSIVE, LIMITED-TIME BONUS REBATES FROM DTE ENERGY!

Your address currently
qualifies you to receive
double our standard
rebate on select
upgrades, including
AIR CONDITIONING
replacements and tune-ups!
Act now, while rebate funds last!

2X
STANDARD
HVAC REBATE
AMOUNT

Details on back.



To learn more,
call 855.539.1906.

 **DTE Energy**

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DOUBLE REBATES? YES, PLEASE!

DTE Energy has identified special areas with peak power usage and wants to help specifically targeted customers with energy reduction and savings. For a limited time, we are offering double rebates on energy efficiency upgrades. You'll save money now on a tune-up or equipment replacement and continue saving on your energy bills for years to come.

Three ways to save.

Energy Efficiency Program	Standard Rebate	Your Rebate
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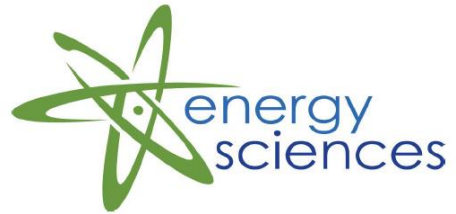
**Factory installed in new gas furnaces only

You must be a DTE Energy residential electric customer to participate. Offer applies only to customers who have received this promotion directly from DTE. Offer must be redeemed by December 31, 2018.

READY TO START SAVING?

Visit dteenergy.com/eed to find a participating contractor near you. Give them the promo code **DTE2Xrebate** to receive your bonus rebate. To learn more, call 855.539.1906.

 **DTE Energy**



Phase I – C&I Implementation Overview

C&I Measures - Phase I (Hancock)

Quick Launch :

- **Lighting Measures**
 - Doubled Standard Rebates
- **HVAC and Custom Measures**
 - \$500/Peak kW

C&I Target: 20 Primary Customers

- Analyzing Customers Past Participation in EE To Gauge Potential
- Secondary Customers - Campaign to come

Energy Sciences - C&I Quick Launch Incentives

DTE Energy

GET EXCLUSIVE, LIMITED-TIME BONUS REBATES

INCLUDES INCREASED INCENTIVES + A FREE OPPORTUNITY ASSESSMENT

DTE Energy can help you help your business.

For a limited time, DTE is offering a **special BONUS Incentive**, including a FREE opportunity assessment, for customers in your specific area. The bonus is in addition to incentives from other energy efficiency programs offered by DTE.

To be eligible for the incentive, you must implement one or more eligible energy efficiency upgrades at your facility. Upgrades may include:

- Energy efficient LED lighting
- High-efficiency air conditioning equipment
- Custom energy-saving equipment for your commercial or industrial business

By adding a special BONUS Incentive to your project, you'll save money now and continue saving on your energy bills for years to come.



EXCLUSIVE BONUS INCENTIVE OFFER

MEASURE NO.	APPLICATION PAGE NO.	MEASURE	STANDARD INCENTIVE	YOUR INCENTIVE + SPECIAL BONUS
L-1D	8	DLC-listed interior low bay LED	\$145 per kW reduced	\$290 per kW reduced
LL-17D	9	DLC-listed interior high bay LED	\$225 per kW reduced	\$450 per kW reduced
LL-78D	9	DLC-listed interior high bay LED for 24/7 operation	\$400 per kW reduced	\$800 per kW reduced
LO-1	11	Occupancy sensor for connected load greater than 500 W	\$40 per sensor	\$80 per sensor
LO-2	11	Occupancy sensor for connected load up to 500 W	\$15 per sensor	\$30 per sensor

NOTE: A special BONUS incentive may also be available for your custom energy efficiency projects and air conditioning upgrades. Contact us for details.

A LIMITED-TIME OFFER AT YOUR ADDRESS

Our special BONUS incentive is available for projects initiated between Nov. 1, 2018 and Feb. 28, 2019.

How It Works

1. Download an application from dteenergy.com/saveenergy to reserve funds for an eligible energy efficiency project.
2. Include the special promo code **DTEBONUSREBATE** on page 7 of the application.
3. Submit your completed application to saveenergy@dteenergy.com by February 28, 2019.

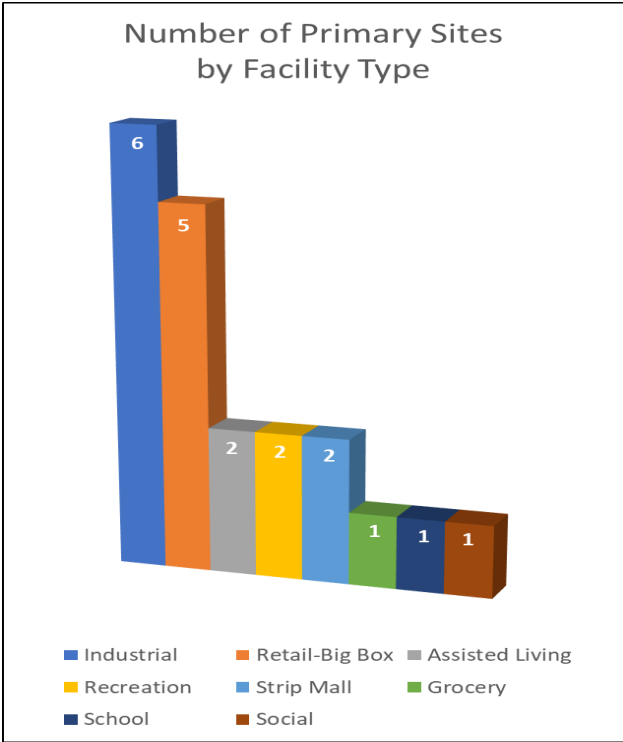
PROMO CODE

Be sure to include the special promo code **DTEBONUSREBATE** on your application to receive extra incentives.

NEED A CONTRACTOR?

Contact us today for a list of approved service providers who can transform your project idea

C&I Primary Sites Characterization: By Facility Type



20 Total Primary Sites on Hancock Substation

C&I Marketing Channels

DTE Account Managers

- Facilitate introductions between customers and the implementation team

ES Energy Envoys

- Provide detailed participation info and ensure technical info is understood
- Conduct free opportunity assessments

FREE Opportunity Assessments

- Identify latent opportunities at the primary sites
- Assessment reports include opportunities, an estimated incentive, and trade allies information

Promotional Emails, Fliers & Mailers

- Program information, how to participate, and a special NWA Promo Code
- Emails also provide a means of tracking effectiveness

Historical & Geo-Targeted Trade Allies

- Education and opportunity promotion
- Trust and familiarity



Non-Wire Alternatives – DR Programs Overview

Demand Response (DR) Programs Overview

DR Program	Current Estimated Peak Reduction	Typical Annual Events	Program Status
CoolCurrents (IAC Switches)	0.45 MVA	6	Ongoing
DTE Smart Savers (BYOD T-Stats)	.004 MVA	5	In development. Planned marketing campaigns for 2019
SmartCurrents (Ecobee T-Stat with DPP Rate)	.023 MVA	3 to 6	In development. Planned marketing campaigns for 2019

NWA Pilot – 2019 Next Steps

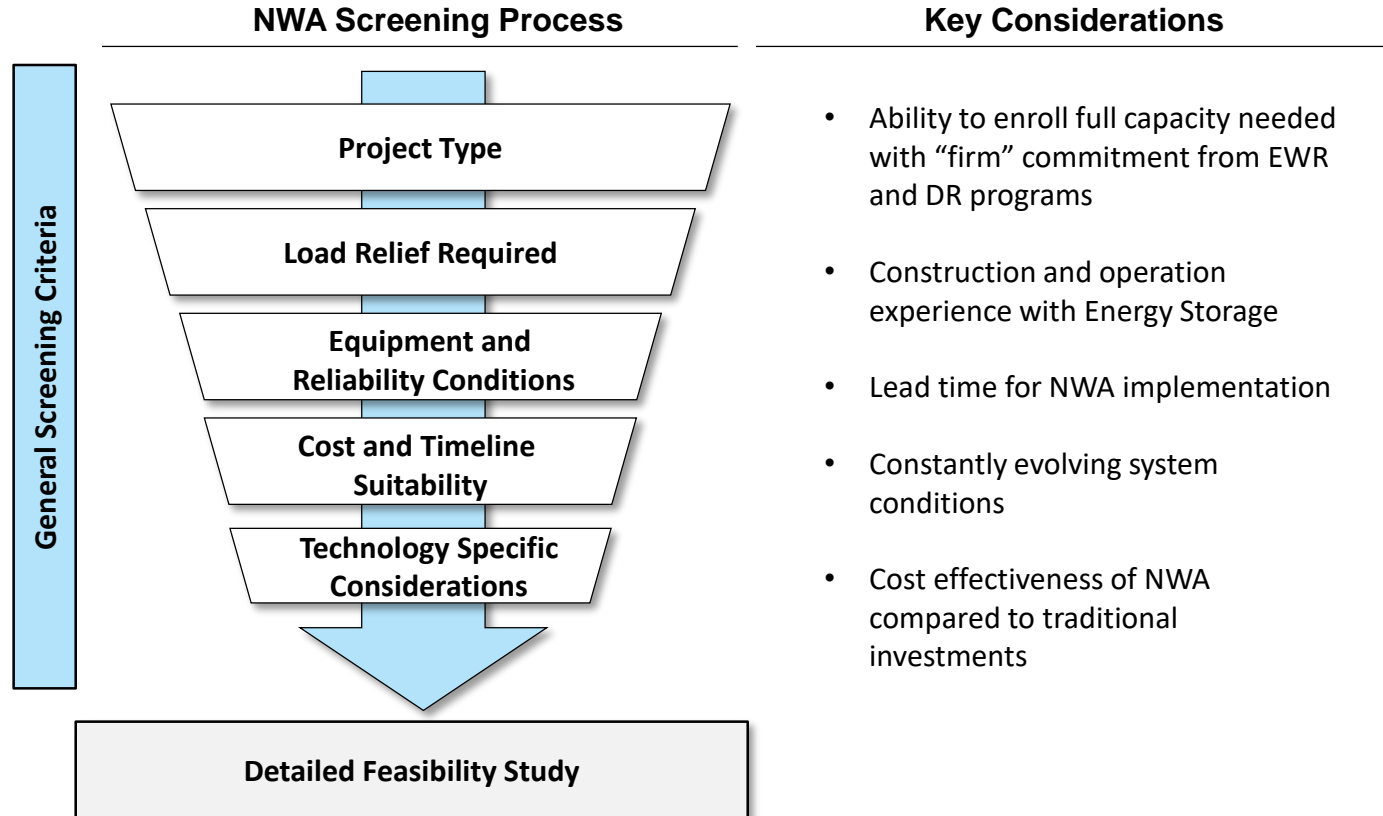
Phase I (Hancock Substation)

- Continue C&I Outreach and Additional Res. Field Testing (Feb – Mar 2019)
- Baseline Energy Analysis – Assessment of EE to Meet Load Relief Need (Mar 2019)
- Optimized Measure Portfolio (April 2019)
- Cost Benefit Model (April 2019)
- Expand Marketing Plan and Field Testing for Res. and C&I (May – August 2019)

Phase II (Substation 2 TBD)

- Selection of a Phase II substation (Jan – Jun 2019)

DTE is actively pursuing NWA pilots to remove technology barriers and understand their cost effectiveness and technical performance





Questions?

Contact: Kevin Stewart, kevin.stewart@dteenergy.com