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2016 Operations Plan – Natural Gas



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Key Indicators

Natural Gas Market Transformation Business Plan

Key Principles of Operation:

- No promotion of fuel switching
- No cross subsidies between gas and electric
- Implementing gas efforts without diminishing existing electric market transformation work

Key Objectives:

- Build experience working in natural gas markets
- Identify and resolve integration issues
- Drive towards a fully integrated approach market transformation for the long term.

2015 Successes for the Natural Gas Program

- Launched first regional natural gas market transformation effort
- Staffed Senior Manager, Program Manager and Product Manager and launched a Natural Gas Portfolio team
- Crafted 2015/2016 Operations Plan & Targets
- Finalized Gas Technology Institute Partnership Agreement
- Completed analysis and monitoring of 3 Northwest sites for gas water heaters
- Negotiated contract to accelerate product advancements in gas heat pump water heaters
- Lab tested 5 gas dryers to identify energy savings opportunity
- Launched Rooftop HVAC demonstration project
- Conducted literature review for Hearth products and launched expanded market characterization study
- Conduct due diligence on Stone Mountain Technologies to mitigate future risk

2016 Success Factors and Challenges

Critical Success Factors:

- Market acceptance
- Product prototype performance
- Staff up with critical resources
- Stakeholder satisfaction with continued engagement and collaboration
- Drive advancement of gas initiative to ultimately attract more regional participation

Challenges & Risks:

- Young portfolio of projects/programs – result in greater uncertainty and variance
- Product performance & estimated technical potential
- NEEA newness to the natural gas market
- Market demand & interest in gas efficiency
- Uncertain marketplace

Business Summary

2016 Business Goals & Activities

Develop high-functioning team relentlessly pursuing business results:

- Develop mid-cycle evaluation assessment plan
- Integrate Natural Gas Portfolio into NEEA management infrastructure (Portfolio team, reporting structures, budgeting and tracking)
- Explore partnerships with Fortis BC, California, and other sub-regional partners to expand and maximize market transformation efforts
- Revisit GTI and CEE Partnership/Membership agreements (Q4)
- Participate as regional representative for GTI
- Explore existing research on residential natural gas customers leveraging advisory committee partnership & resources
- Evaluate and test Alliance Cost Effectiveness Model (ACE) to identify necessary changes to model design to serve natural gas market transformation programs

Gas-fired Heat Pump Water Heaters

Accelerate product development of gas-fired heat pump water heater technology and create market conditions to accelerate market adoption to influence a federal manufacturing standard.

2016 Objectives:

- Develop pre-commercialized product leveraging Phase 1 field testing results
- Explore alternative manufacturers of gas-fired heat pump technology
- Expand market characterization work leveraging existing water heater market research and Residential Building Stock Assessment etc.
- Create product specification building regional alliance on product needs
- Partner with national labs to engage in product development opportunities
- Expand manufacturer outreach and partnership
- Build and enhance business case for gas fired heat pump water heaters

Combination Space and Water Heating System

Create and leverage market partners to develop a combination space and water heating system at an efficiency exceeding current high-efficiency furnaces and stand-alone gas water heater technology to ultimately create market momentum in the new construction and retrofit market to influence code.

2016 Objectives:

- Conduct stress test of pre-commercialized product to refine prototype design.
- Test prototype under cold climate conditions
- Conduct controlled field test to a real-world heating application
- Complete prototype testing in a simulated real world application switching between space and water heating modes.

Hearth Products

Influence product stocking and manufacturing practices to increase adoption of high-efficiency hearth products.

2016 Objectives:

- Conduct market characterization research, leveraging the Energy Trust of Oregon 2015 study to broaden understanding of market and consumer barriers to adoption and purchase
- Develop tiered product specification
- Engage supply-chain community to explore incentive offering to influence stocking and manufacturing practices – target launch Q1 2017
- Explore and create turn-key utility program offerings geared at creating regional parity

Efficient Dryers

Increase market adoption of efficient gas clothes dryers to influence the enactment of more stringent ENERGY STAR specification and ultimately federal efficiency standards.

2016 Objectives:

- Provide stocking incentive to retailers to influence product mix leveraging existing retail platform
- Leverage existing energy efficiency partnerships (PG&E) to explore market potential
- Deliver Market Characterization study for dryers in partnership with NEEA's Electric Dryer initiative.
- Identify next tier of high-efficiency gas dryers

Rooftop HVAC

Increase market adoption of rooftop units with condensing gas-fired heating equipment in both new and retrofit markets maximizing occupant health and comfort.

2016 Objectives:

- Conduct field tests to validate proof of concept with two manufacturer partners
- Conduct market research on rooftop HVAC sales & purchase channel
- Identify energy savings potential & opportunity



Financial Information

2016 Natural Gas Program Staffing

Sr. Manager	1.00
Program Manager	1.00
Product Mgmt	1.90
Eval/Research	0.80
Economist	0.40
Planning	0.20
Sr. Managers (various)	0.08
Directors	0.12
Administrative	0.05
TOTAL FTE	5.55

- 3.55 FTE resources shared with NEEA Electric operations
- 2.0 FTE dedicated personnel
- Business Plan calls for 6.4 FTE by end 2016

2015/2016 Natural Gas Financial Information

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Item	2015F	2016B	2015 & 2016 Estimated Expenses	2015 & 2016 Business Plan	Expense/BP Comparison (2 Years)
Salary & Benefits	\$ 306	\$ 741	\$ 1,047	\$ 1,413	74%
General & Admin	\$ 50	\$ 50	\$ 100	\$ 10	1000%
Indirect Costs	\$ 178	\$ 443	\$ 621	\$ 641	97%
Scanning	\$ 100	\$ 200	\$ 300	\$ 225	133%
Program Costs	\$ 511	\$ 1,449	\$ 1,960	\$ 1,562	125%
Codes & Standards	\$ -	\$ -	\$ -	\$ 200	0%
Mid-Cycle Assess	\$ -	\$ -	\$ -	\$ 150	0%
Other	\$ 20	\$ 24	\$ 44	\$ -	
TOTAL	\$ 1,165	\$ 2,907	\$ 4,072	\$ 4,201	97%



Thank you!

TOGETHER We Are Transforming the Northwest

