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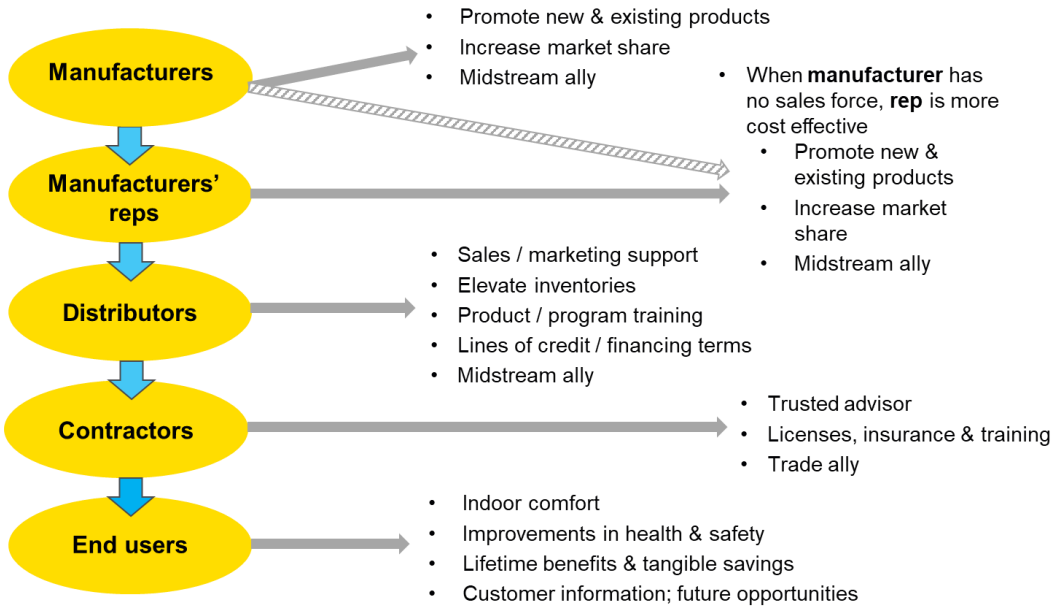
April 8, 2019

Building Decarbonization Workshop

Supply Chain Strategies: SB 1477



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VEIC's Approach to the Supply Chain

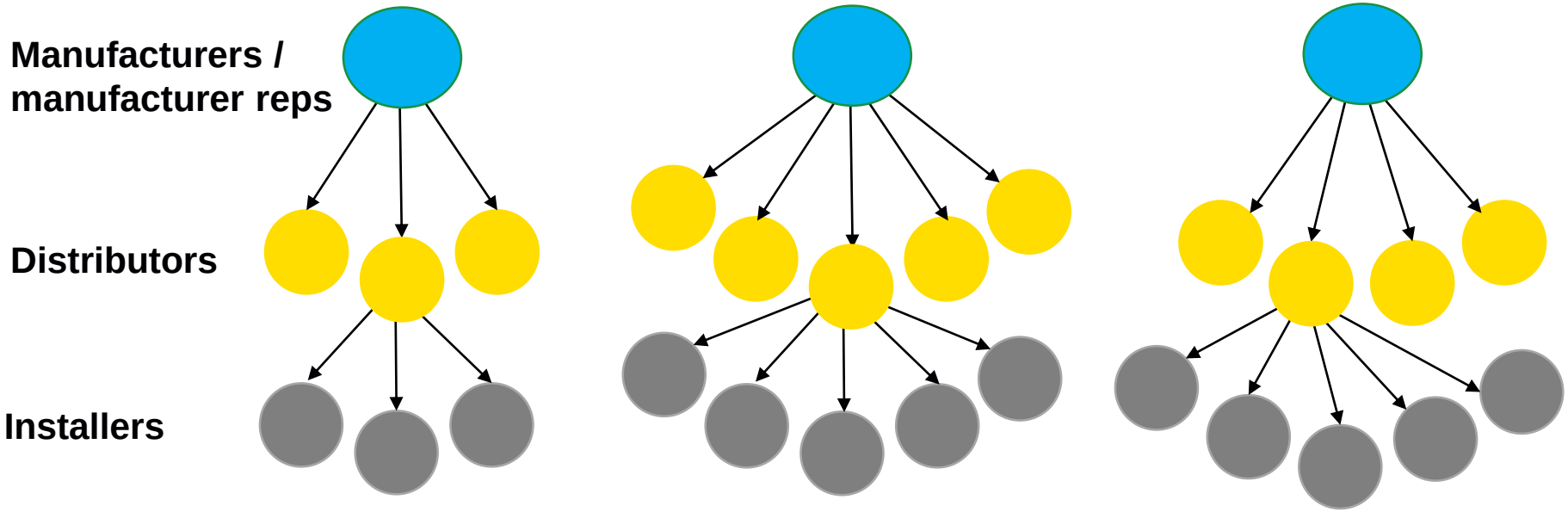
1. Project planning
2. **Establish value proposition**
3. **Map supply chain**
4. Eligibility & performance request
5. Data collection
6. **VEIC SMIT RFI / planning sessions**
7. Establish incentive levels
8. Administration / management fees
9. **Execute SMIT plans**
10. Supply chain Account Manager
11. MOU / PDA

Distributor Value Proposition: HPWHs

Strategic Partnerships

Factor	Electric resistance heater	HPWH	Variance
Resale from distributor to customer	$458	**$1,054**	**$596**
Distributor cost (estimate)	$376	**$850**	**$474**
Gross profit per water heater	$82	**$204**	**$122**
Gross margin % per water heater	18%	**19%**	**150%**
Gross profit generated from 50,000 units / year	$4,100,000	**$10,200,000**	**$6,100,000**

Map Supply Chain



55 companies / 270 locations				
Tier	**Percent of companies**	**Percent of total branch locations**	**Branches**	**Cumulative**
Top 4	**7%**	**55%**	148	**148 (55%)**
Next 5 (9)	**9% (16%)**	**19%**	50	**198 (74%)**
Next 9 (18)	16% (32%)	11%	30	228 (85%)
Next 37 (55)	68% (100%)	15%	42	270 (100%)

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SMIT: Sales, Marketing, Inventory, & Training

1. **Internal / external stakeholder planning meetings**
2. **RFI to suppliers**
3. **Suppliers: Develop, present, collaborate on, and execute SMIT plan**

4. Wholesale Marketing Plan

Please use the table below to share your HPWH marketing plan for the wholesale channel. Please mark with an (x) to indicate that you plan to reach an audience with a given tactic. Keeping in mind that cooperative marketing funds are limited, please mark with a ($) if you would like to collaborate with Hot Water Solutions on a given tactic. Feel free to suggest additional audiences and/or tactics.

Tactic / Audience	Local trade events	Distributor events	Printed literature	Print advertising	Email marketing	Social media	P.O.S. marketing	Other _____
Hot Water Solutions Supply Channel Account Manager								
Regional Utilities								
Wholesale Distributor Management Teams								
Wholesale Distributor Sales Teams								
Trade Installers and Service Contractors								
End Users/ Property Owners								
Other _____								

Section III – Inventory Plan

Hot Water Solutions understands that increased inventory can help to accelerate HPWH sales in the Northwest. As sales volumes increase and technologies improve, it is important to understand how your organization will support the supply chain building inventory, launching new models, and phasing out existing inventory.

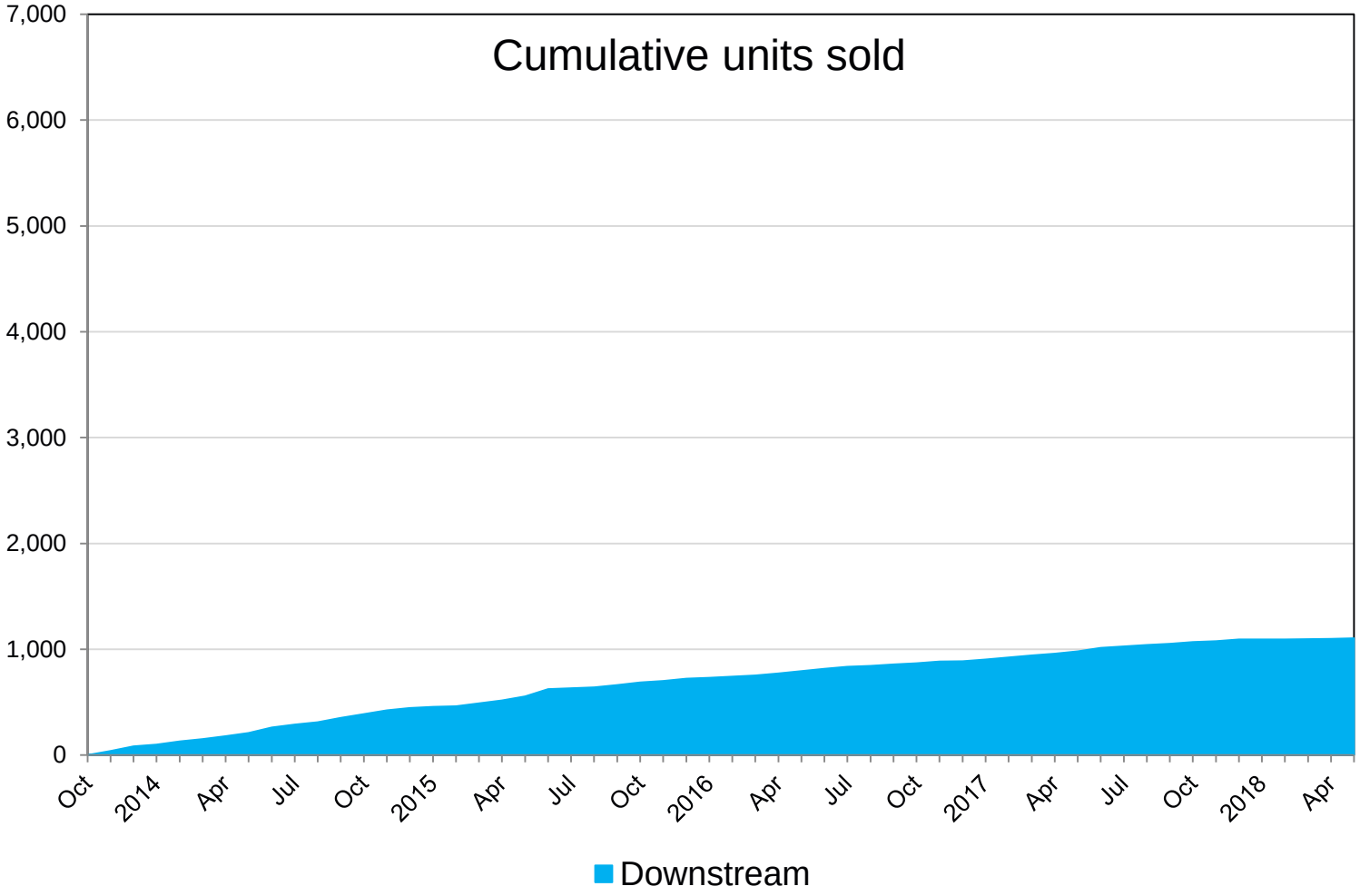
7. Inventory Support

Please complete the table below to indicate how you plan to address inventory concerns from distributor customers. Where applicable, please provide additional details on your inventory support plans and describe how Hot Water Solutions can provide assistance.

Inventory Question	Yes/No
Will you consider extending your distributor's payment terms with the objective of elevating inventory levels?	
Will you offer other financial incentives to the distributors, i.e., volume discounts, etc.?	
Will you accept returns of the lower tier HPWHs in exchange for higher tier HPWH inventory?	
Will you eliminate associated inventory restocking fees when your distributors exchange baseline inventory for HPWH inventory?	
Do you plan to have an exchange program of the lower tier HPWH inventory for higher tier HPWH inventory?	
Will you address warranty issues associated with the replaced technology?	

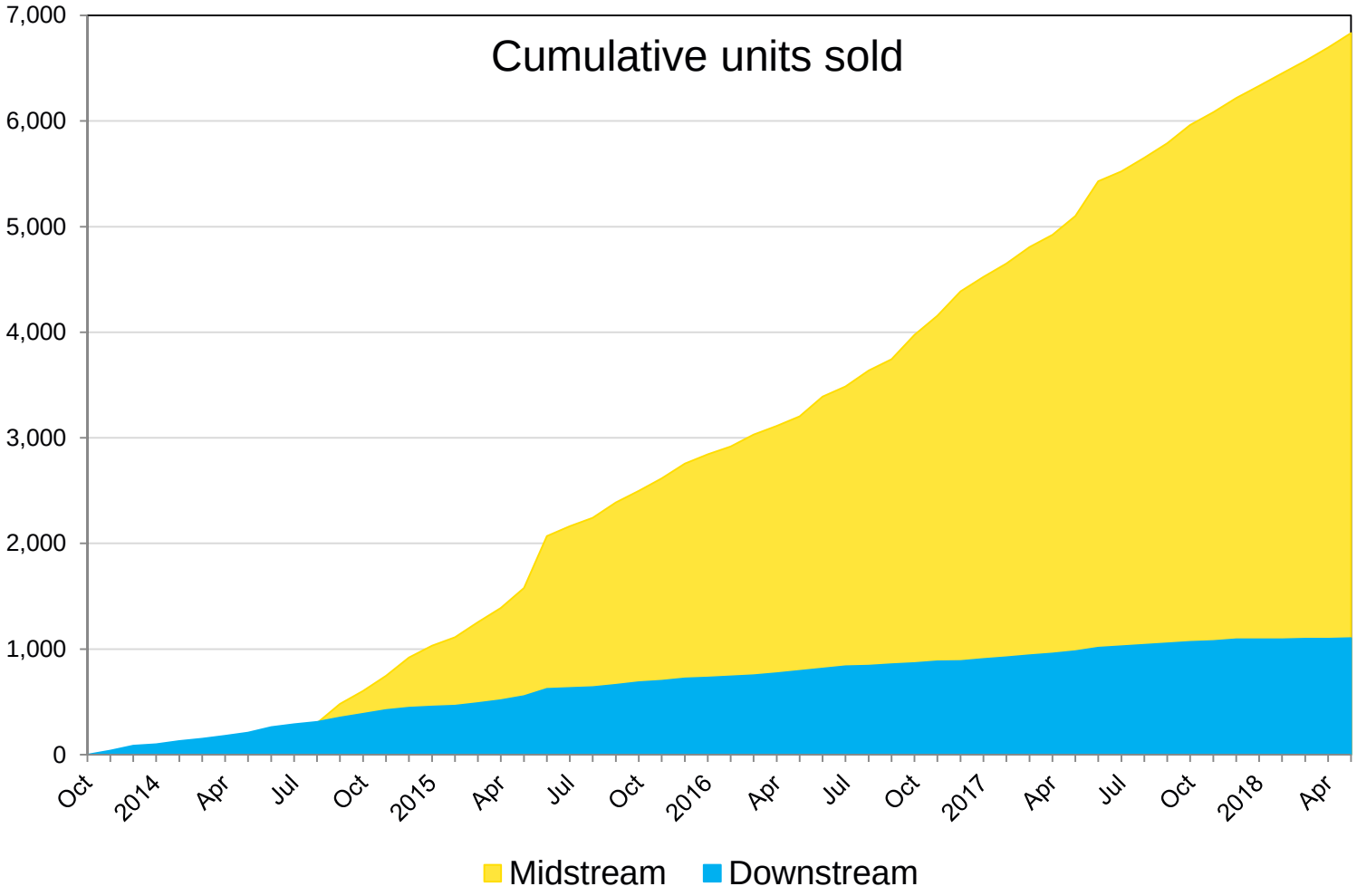
Midstream vs. Downstream

Heat Pump Water Heaters in Vermont



Midstream vs. Downstream

Heat Pump Water Heaters – Execution of SMIT Plans



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Vermont: HPWH Metrics

Midstream / SMIT Impact

	US	VT	VT %
Population	324,227,000	626,562	***0.2% of US population**
Annual number of HPWH units	60,000	**~2,150**	***VT: 3.6%** of US total HPWHs
VT = 1,700% contribution of annual uptake vs. % of US population			
HPWH penetration %	~1.25%	**~60%** ***(electric to electric)***	**+4,700%**
	Before SMIT	**After SMIT**	**V%**
VT HPWH penetration %	**7%**	**60%**	**+750%**

ASHP Penetration in the Northeast

Execution of SMIT Plans in Vermont

State	Program / utility	Incentive approach	Est. annual installations	Housing units in state	Annual installation rate (% of homes)	Efficiency Vermont annual installation rate (V%) (over other NE Utilities)
VT	**Efficiency Vermont**	**Midstream**	**4,141**	**329,525**	**1.26%**	**-**
CT	Energize CT (Eversource & United Illuminating)	Downstream; '12-'15; now upstream	1,475	1.5M	**0.10%**	**1,160%**
MA	Mass Save	Downstream	7,484	2.85M	**0.26%**	**385%**
MA	Mass Clean Energy Center	Downstream	4,050	2.85M	**0.14%**	**800%**
ME	Efficiency Maine	Downstream	6,000	730K	**0.82%**	**54%**
NH	NH Saves	Downstream	1,230	730K	**0.16%**	**688%**
NY	NYSERDA	Midstream to contractor	5,280	8.2M	**0.06%**	**2,000%**
RI	National Grid	Downstream	1,000	462K	**0.22%**	**473%**

Note: Annual installation rates are based on reported or projected program measures and total housing units by state. Estimated program installation rates are based on program participation data from 2017 for Connecticut, Maine, NYSERDA and Vermont; 2016 for Mass Save; June 2016 to May 2017 for MassCEC; 2015 for Connecticut; and 2018 planning estimates for National Grid RI and NH Saves.

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Zero Energy Modular

Decarbonization Strategy for Affordable Housing

Modular Factory

- Transform construction industry
- Decarbonization at scale
- Jobs + economic development

Zero Energy Home

- All-electric + solar PV
- Reduced energy burden
- Affordable + healthful

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Leveraging Existing Relationships

Electrical / Lighting Supply Chain *(E)* + HVACR / Plumbing *(P)*

- **Strategic Electrification**
  - Electric vehicles *(E)*
  - Ductless mini-splits *(E, HVACR)*
  - VRF / VRV *(E, HVACR)*
  - Heat pump water heaters *(E, HVACR, P)*
  - + Connected devices *(E, HVACR, P)*

200-amp load center upgrades

Wireless Valve and Damper Actuators

Wireless Temperature and Humidity Sensors

Wireless Hotel Room HVAC Controls

Wireless Terminal Equipment Controllers

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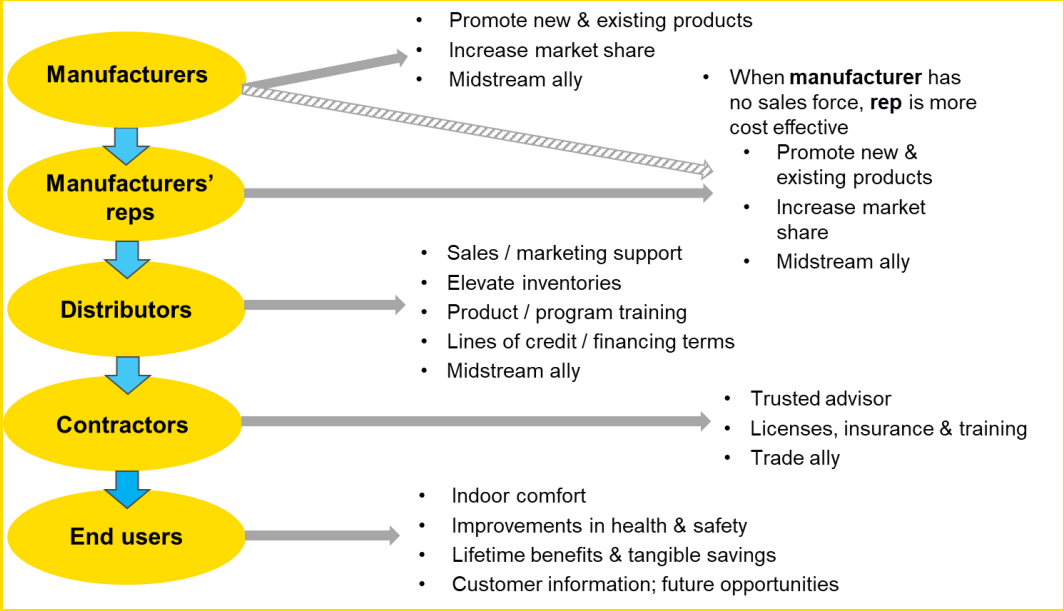
Thank you!

Questions?



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