

# UHEE

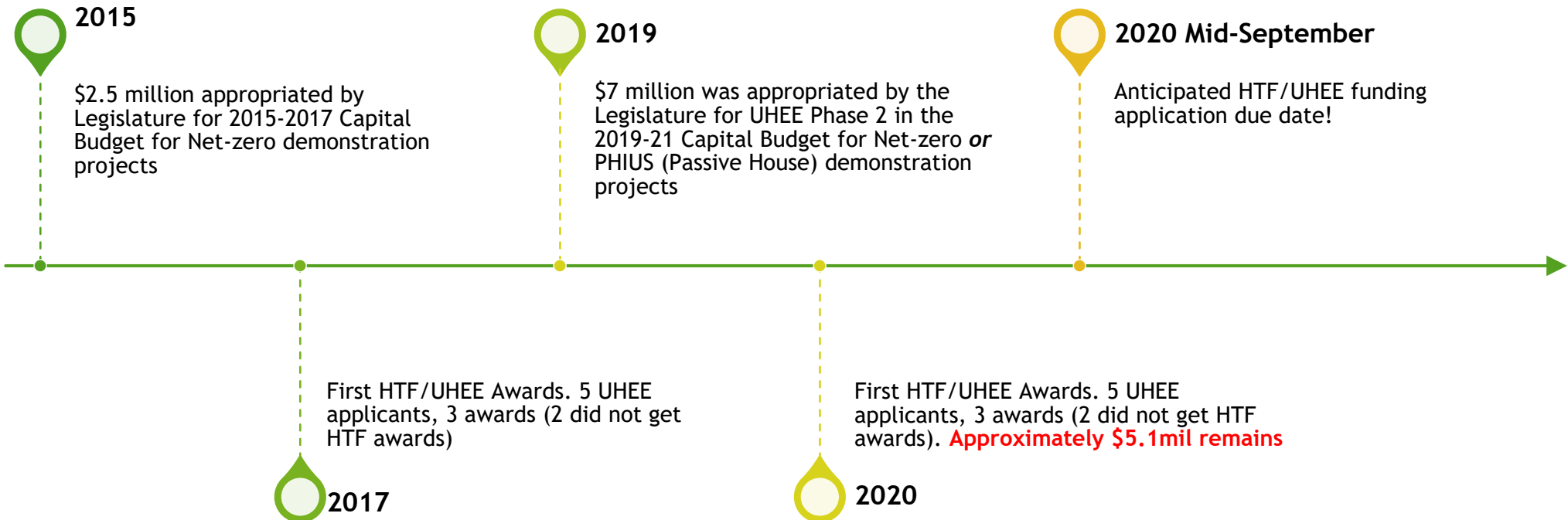
Ultra-High Energy Efficiency (UHEE) Demonstration Program

# Why UHEE?

Support Demonstration Projects with up to \$1 million (soft cap) per project.



# UHEE Funding



# UHEE Phase 2 - Eligibility



Washington State Legislature has authorized funding for two different development approaches to achieving highly energy efficient affordable housing.

- ▶ Net-zero site energy use
- ▶ Passive House Institute U.S. (PHIUS) certification

# UHEE and Exemplary Buildings

## UHEE

- ▶ Qualify for HTF
- ▶ Meet UHEE Criteria
- ▶ Competitive
- ▶ Apply with HTF Application - September 2020

## Exemplary Buildings Program

- ▶ Meet EB Criteria
- ▶ Provide Assistance with UHEE Application if chosen
- ▶ Guidelines for Best Practices
- ▶ Technical Assistance
- ▶ Other Utility Incentives available

# Scope

- ▶ Rental or Homeownership projects
  - ▶ Multifamily Rental Projects: \$1mil soft cap
  - ▶ Homeownership Projects: \$250K soft cap
  - ▶ Can be portion of project, but smallest portion must be a whole “building”
- ▶ UHEE scope applies only to the residential portion of a housing project. This includes lobbies, halls, stairs, elevators, laundry, storage, mechanical rooms, parking and all other spaces serving the residential occupancy. UHEE targets do not apply to the energy used to serve non-residential spaces and auxiliary services.



# Net-zero

- ▶ Generate 100% of annual energy used on-site
- ▶ All electric (at least this is our interpretation)
- ▶ Batteries not required (net-metering acceptable)
- ▶ No prescriptive design requirements other than meeting ESDS/Code
- ▶ Requires more renewables than PHIUS
- ▶ Very difficult for projects >4 stories



# PHIUS (Passive House)

- ▶ Pursue certification under PHIUS+ 2018 or Core
- ▶ Fossil fuels can be used
- ▶ Batteries not required (net-metering acceptable)
- ▶ Prescriptive design targets for thermal envelope, air leakage, and balanced ventilation, in addition to ESDS/Code
- ▶ Requires less renewables than PHIUS
- ▶ Suitable for projects of any height





# Process

1. High-level evaluation of which path is best for your project
2. Integrative design effort and energy/water modeling to determine UHEE design requirements
3. Submit HTF application with UHEE addendum
  - ▶ Conceptual design of UHEE and ESDS project
  - ▶ Cost estimate for UHEE design and ESDS deducts (by measure)
  - ▶ Modeling of both UHEE and ESDS designs\*
  - ▶ Life-cycle cost analysis (LCCA)
4. **Get HTF + UHEE award!**
5. Integrative design effort to optimize/finalize design for construction
6. Build and commission project (complete certification if pursuing PHIUS+)
7. Annual reporting of actual energy performance to Commerce for 3 years

\* PHIUS path requires “2hr red flag review” before application, which can take up to 2 weeks

# UHEE Funded Projects

- ▶ 2016 Competitive Awardees (Net-zero):
  - ▶ Clare's Place: Catholic Housing Services, 65 PSH apartments, Everett, WA. Completed Fall 2019
  - ▶ Hopeworks Station II: Housing Hope Properties, 65 affordable apartments, completed. Everett, WA. Completed Fall 2019
  - ▶ Home Yard Cottages: Transitions, 15 of 24 PSH apartment homes, Spokane, WA. Completed Fall 2019
- ▶ 2019 Competitive Awardees (Net-zero and PHIUS):
  - ▶ Hobson Place South: DESC, 92 PSH apartments, PHIUS+ 2018, Seattle, WA. Estimated Completion Winter 2022
  - ▶ Kennewick Microhomes: Kennewick Housing Authority, 16 affordable modular homes, net-zero, Kennewick, WA. Estimated Completion Spring 2021
  - ▶ Riverton Cascade: Homestead Community Land Trust, 8 affordable homes, Tukwila, WA.

