

SUSTAINABLE ENVIRONMENT COMMISSION



Steve McGeehan
Commission Chair
sec@ci.moscow.id.us

Regular Meeting
~Agenda~

Kyle Steele
Staff Liaison
208-883-7133

<https://www.ci.moscow.id.us/551/Sustainable-Environment-Commission>

Tuesday
August 16, 2022

6:00 PM

Council Chambers
2nd Floor City Hall
206 E. 3rd St.

WELCOME AND ATTENDANCE

REGULAR AGENDA

1. **Introduction of new SEC member - Ian Schlater**
2. **Approval of Sustainable Environment Commission July 19, 2022 Minutes (ACTION ITEM)**
Minutes presented for approval.

PROPOSED ACTIONS: Approve the July minutes as presented; approve the minutes with amendments; or provide staff further direction.

3. **Public Comment and Response to Previous Comments (limited to 10 minutes)**
Members of the public may speak to the Commission regarding matters NOT on the agenda or currently pending before the Commission. Please state your name and city of residence for the record and limit your remarks to three (3) minutes.

4. **Use of Funds for Climate Action Planning**
Discussion of city funds to be used for climate actions planning

PROPOSED ACTIONS: Discussion and other actions as appropriate.

5. **Composting on the Palouse**

Follow-up discussion on Stevie Steely-Johnson's presentation on composting including city's interest in a compost program.

PROPOSED ACTIONS: Discussion and other actions as appropriate

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REPORTS

1. City Sustainability Report- Kelli Cooper
2. Moscow High School Subcommittee Report- Ian Schlater
3. Climate Action Working Group – Tina Hilding

ANNOUNCEMENTS

UPCOMING EVENTS / MEETINGS

1. Next SEC meeting Sept 20, 2022

ADJOURN

NOTICE: Moscow City Council and committee meetings are televised, videotaped and/or recorded. Individuals attending the meeting who require special assistance to accommodate physical, hearing, or other impairments, please contact the City Clerk, at (208) 883-7015 or TDD 883-7019, as soon as possible so that arrangements may be made.

SUSTAINABLE ENVIRONMENT COMMISSION



Steve McGeehan
Commission Chair
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Regular Meeting
~Minutes~

Kyle Steele
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208-883-7133

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Tuesday
July 19, 2022

6:00 PM

Council Chambers
2nd Floor City Hall
206 E. 3rd St

The meeting was called to order at 6:01 p.m.

PRESENT: Tina Hilding-Vice; Victoria Seever; Olivia Weibe; Sophie Gilbert; Al Poplawsky; Gordon Wilson; Asaph Cousins

STAFF: Jenifer Rossini, Administrative Assistant; Kelli Cooper, Environmental Education and Sustainability Specialist

OTHERS: David Hall; Mia Rognstad; Julia Parker; Omar Al-Hassawi

ABSENT: Steve McGeehan-Chair; Jassen Bluto; Jamal Lyskett

REGULAR AGENDA

1. Introduction of new SEC member - Ian Schlater

Ian was not able to attend this meeting.

2. Approval of Sustainable Environment Commission May 17 and June 21, 2022 Minutes (ACTION ITEM)

Minutes presented for approval.

PROPOSED ACTIONS: Approve the May and June minutes as presented; approve minutes with amendments; or provide staff further direction.

Changes suggested for the May and June minutes: Asaph was present for the June meeting; however, he was not here for May meeting.

Victoria moved to approve May and June minutes, Sophie second to approve minutes as presented

Roll Call Vote: Ayes: Unanimous Nays: None. Abstentions: None. Motion carried.

3. Public Comment and Response to Previous Comments (limited to 10 minutes)

Members of the public may speak to the Commission regarding matters NOT on the agenda or currently pending before the Commission. Please state your name and city of residence for the record and limit your remarks to three (3) minutes.

No public comment.

1. Energy Efficient Construction Methods

Omar Al-Hassawi (architecture professor at WSU) will present on a new program at WSU on carbon conscious construction.

PROPOSED ACTIONS: Receive the report.
Need PowerPoint

In October 2020, there was a call for programs at the master's level in this field; carbon conscious construction.

The course will offer both certificates and a master's program.
This program is being created from various teachers in the area.

There is a lacking competency in the pacific northwest for programs representing this field.
1 in 5 colleges in the nation have all the components to create this program.
Program is estimated to launch January 2023.

Online Undergraduate certificate program will be offered with 15 credits and Graduate degree will be offered with 12 credits.
Master's degree will be offered in person with 30 credits.
WSU may be open to offering this program to businesses in the future.

2. Composting on the Palouse

Stevie Steely-Johnson, Chief Administrative Officer for Inland Northwaste will discuss implementation of a food scrap composting system.

PROPOSED ACTIONS: Receive the report.

There will need to be workshops for the City to put on, so residents can learn about the options for city-wide composting.

Some composting options are: static, wind row, in vessel, biodigester. With a biodigester there is a long list of items that could be collected. Biodigester cost around \$20 million, but there are many grant opportunities. There is a potential to produce energy with the biodigester.
35% of Latah County garbage is organic that gets shipped away.

Inland Northwaste would need to purchase an electric dump truck and new plastic bins with coasters and lids.
They would need to possibly change bin size and pick up recycling weekly.

There is talk about possibly accepting Lewiston and Pullman organic waste to our local landfill.

REPORTS

1. City Sustainability Report- Kelli Cooper

There is a new City hall wisescape with astro turf.

The next climate action plan may not go back to council until fall.

New video of time lapse wisescape coming out.

Potential changes this fall to the water conservation plan.

Artwalk will remain on 5th St.

2. Moscow High School Subcommittee Report- Ian Schalter

No report.

3. Climate Action Working Group (CAWG)-Tina Hilding

Tina went to Farmers market and handed out seeds and talked about the climate action plan.

Ann Arbor Michigan has a new training program (A2Zero Ambassadors) where they will teach interested community members pathways for advancing local sustainability.

ANNOUNCEMENTS

UPCOMING EVENTS / MEETINGS

1. Next SEC meeting August 16, 2022

ADJOURN

The meeting adjourned at 7:38 PM

Steve McGeehan, Chair *(or stamped by Deputy City Clerk)*

Inland North Waste's Plan for Implementing an Organics Program in Moscow

Goal: Institute a comprehensive organics collection and processing program that includes services for both businesses and residential customers.

Where Do We Start & Why?

On July 19th, INW CAO Stevie Steely-Johnson will give a presentation to the Moscow Sustainability Environmental Commission outlining options before us to reach the City's stated climate and waste reduction goals.

ACTION: Compost program According to the EPA, over one third of all food produced in the United States is wasted. A composting program would have multiple environmental and financial benefits. First, when food waste is composted rather than landfilled, it breaks down in an aerobic environment, which does not lead to the production of methane. Additional environmental benefits include reduced surface water run-off where applied, increased moisture retention, reduced erosion, reduced use of artificial fertilizers, reduced landfill needs, and supporting healthy plant growth. Financial benefits include reduced landfill costs, reduced hauling fees, and a marketable product.

The best option is for INW to invest in a Biodigester, which would allow for a wider range of accepted materials than traditional composting methods such as windrows. The breakdown of these materials can generate power, and the Digestate (the leftover material) is a nutrient rich fertilizer in itself.

In order for this process to be most effective, INW would like to bring together representatives from Avista, University of Idaho, City of Moscow and surrounding counties, and local business leaders to collaborate on how best to use the resources provided by this new process.

INW has drafted a proposal for a Pilot Program to illustrate the potential impact of Organics Collection on our waste stream, the environmental benefits of reducing land-filled organic waste, and the new resources created through organics processing. This will also provide INW a chance to refine education materials, work through any unexpected issues in the process, and set ourselves up for sustainable success upon broader implementation of the program.

What is the timeframe?

Assuming buy-in from the City, implementing and ensuring the maximum benefit of such a program is a two to three year process. The Biodigester is the most significant investment and requires the most coordination between parties. INW is actively seeking grant opportunities to help offset the cost of a Biodigester, which would make the investment possible but also increases the timeframe.

There are other practical concerns including hiring and training additional staff, sourcing necessary receptacles and machinery, and proper education of employees and residents as to what waste goes where and why.



ENERGY CONSCIOUS CONSTRUCTION



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy



WASHINGTON STATE
UNIVERSITY

TABLE

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WHAT



IS ENERGY CONSCIOUS CONSTRUCTION?

Energy-Conscious Construction (ECC) are a set of interdisciplinary educational programs with emphasis in high-performing energy-efficient residential buildings and covering all phases of the design process from pre-design to construction observation.

Students can complete one of the following: **Online** undergraduate certificate; **Online** graduate certificate; **Hybrid** professional masters degree

Professionals can complete one or more of the following: **Online** continuing education units; **Online** teaching modules from the DOE building science education solution center.

WHAT



MAKES ENERGY CONSCIOUS CONSTRUCTION UNIQUE?

• **Enrollment Flexibility**

- Accessible content predominantly offered Online
- Fits in students primary plan of study
- Courses count towards elective credits in students primary plan of study

• **Short term Programs**

- Makes it more affordable for students to obtain in-demand learning outcomes
- Allows students to enter market sooner with advanced training

• **Multi-Disciplinary Studies**

- Opens up a diverse range of career opportunities
- Offers an in-depth specialized curriculum

WHY

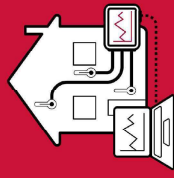


IS ENERGY CONSCIOUS CONSTRUCTION IMPORTANT?

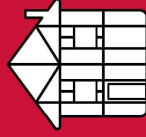
• **Residential buildings energy consumption is significant**

- Residential buildings consume 23% of all energy in the state of Washington.
- More than half of residential buildings were built before 1980.

• **Competency gaps exist nationally among professionals (Department of Energy)**



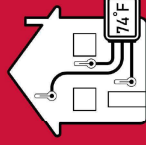
ENERGY MODELING & SIMULATION



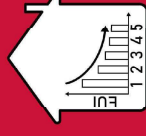
ASSEMBLIES & STRUCTURAL SYSTEMS



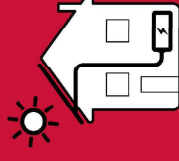
ENVIRONMENTAL CONTROL SYSTEMS



MEASURED PERFORMANCE DATA



PERFORMANCE BENCHMARKS



SMART BUILDING TECHNOLOGIES

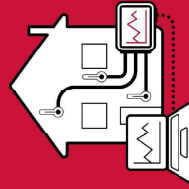
• **Current educational programs fall short in meeting competency gaps**

- Offerings at the national level are mainly longer term Master's degrees.
- Offerings at the regional level focus on a subset of the competency gaps.

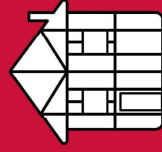
BACKGROUND

DEVELOPMENT OF ENERGY CONSCIOUS CONSTRUCTION

OCTOBER 2020: The Department of Energy (DOE) released a Funding Opportunity Announcement (FOA) outlining the need to address competency gaps for building engineers and design professionals:



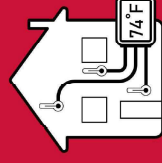
ENERGY MODELING
& SIMULATION



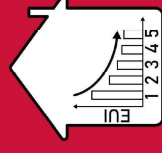
ASSEMBLIES &
STRUCTURAL
SYSTEMS



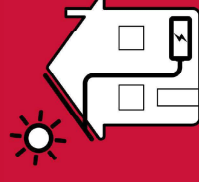
ENVIRONMENTAL
CONTROL SYSTEMS



MEASURED
PERFORMANCE
DATA



PERFORMANCE
BENCHMARKS



SMART BUILDING
TECHNOLOGIES

BACKGROUND

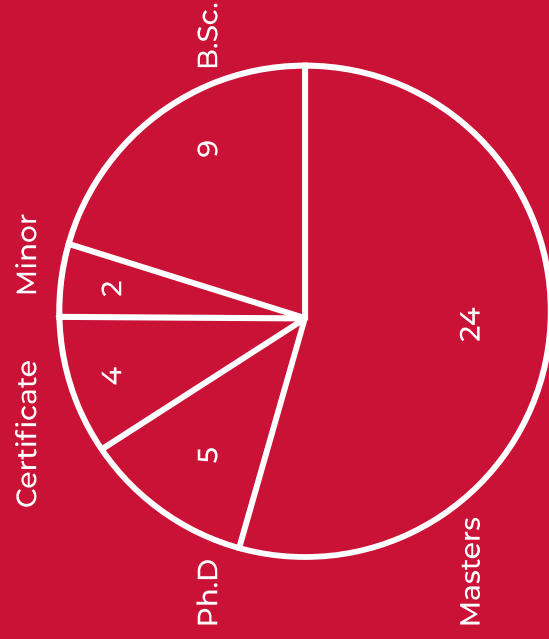


DEVELOPMENT OF ENERGY CONSCIOUS CONSTRUCTION

Degrees offered by 30 institutions nationally are predominantly at the master's level.

Only three programs are advertised as online/hybrid delivery.

Existing offerings in the state and PNW lack in meeting the outlined competency gaps.



BACKGROUND



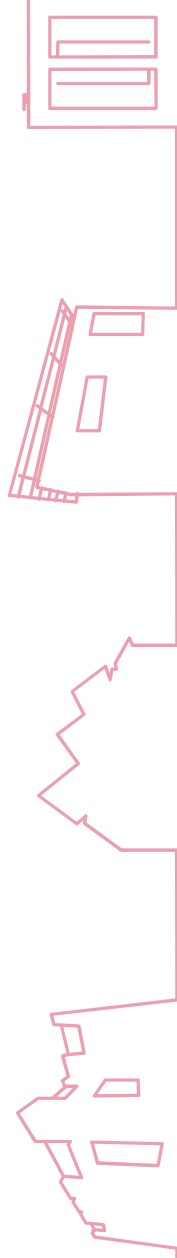
DEVELOPMENT OF ENERGY CONSCIOUS CONSTRUCTION

The VCEA has expertise in these areas but existing courses only address a subset of the competency gaps and are scattered across its departments and schools, mainly at the graduate level.

The VCEA is the only one of five colleges in the nation to include all major design disciplines for the built environment with engineering disciplines.

OCTOBER 2021: The official launch of WSU ECC project.

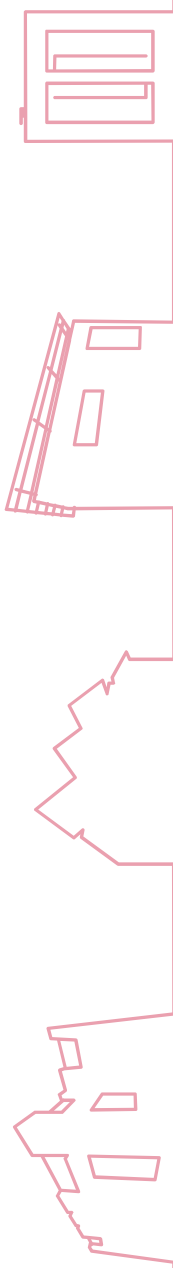
LEARNING



OUTCOMES

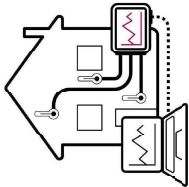
- Understand the fundamentals of building science.
- Analyze the operational cycles of environmental control systems.
- Understand current state energy code requirements.
- Apply common and emerging envelope assemblies into design proposals.
- Use whole-building performance simulation software to evaluate design proposals.
- Evaluate performance of built projects using field measurement equipment.
- Create a comprehensive design of a multi-family residential project.
- Understand human behavior impacts on building performance.

LEARNING

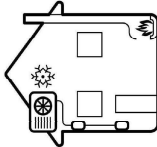


OUTCOMES

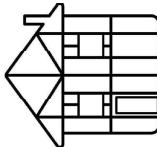
FALL / SPRING		CREDITS
Advanced Residential Construction or		3
Modular Off-Site Construction		3
Environment Control Systems I		3
SUMMER		
Energy Modeling I		3
Fundamentals of Building Science		3
Residential Codes, Standards, Rtg. Sys.		3
		15



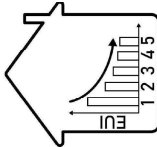
ENERGY MODELING & SIMULATION



ENVIRONMENTAL CONTROL SYSTEMS



ASSEMBLIES & STRUCTURAL SYSTEMS

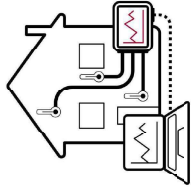


PERFORMANCE BENCHMARKS

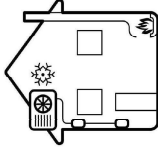
UNDERGRADUATE CERTIFICATE

LEARNING

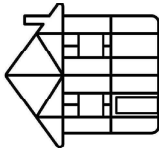
OUTCOMES



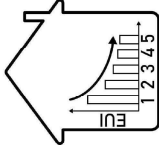
ENERGY MODELING &
SIMULATION



ENVIRONMENTAL
CONTROL SYSTEMS



ASSEMBLIES &
STRUCTURAL SYSTEMS



PERFORMANCE
BENCHMARKS

SPRING

Envelope Assemblies

SUMMER

Energy Modeling II

Environment Control Systems II

Residential Codes, Standards, Rtg. Sys.

CREDITS

3

3

3

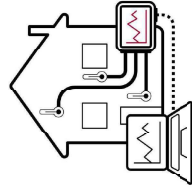
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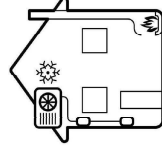
GRADUATE CERTIFICATE

LEARNING

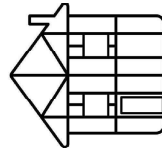
OUTCOMES



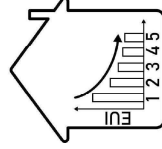
ENERGY MODELING &
SIMULATION



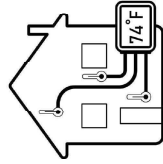
ENVIRONMENTAL
CONTROL SYSTEMS



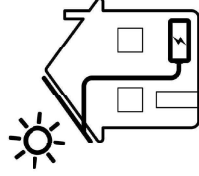
ASSEMBLIES &
STRUCTURAL SYSTEMS



PERFORMANCE
BENCHMARKS



MEASURED
PERFORMANCE DATA



SMART BUILDING
TECHNOLOGIES

FALL

- Fundamentals of Building Science
- Residential Codes, Standards, Rtg. Sys.
- Field Inspection & Energy Auditing
- Human-Centered Bldg. Design & Op.

CREDITS

- 3
- 3
- 4
- 3

SPRING

- Environmental Control Systems II
- Energy Modeling II
- Envelope Assemblies
- Comprehensive Design Experience
- Research (Career Paths)

- 3
- 3
- 3
- 4
- 4

30

PROFESSIONAL MASTERS DEGREE



THANK YOU!

QUESTIONS?