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sDESIGN, SDL process

Signin

User name

Password

Enter

(sign up, if there is not already signed)

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select any option

1.for-You 2.for-Home 3.for-business 4.for-industry 5.for-city

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PROCESS 1 ASSESSMENT

1. LOCATION ? NAME OF PLACE, STATE, COUNTRY(all drop down menu)

2. SEASON ? (all drop down-summer, autumn, winter, spring), MONTH? (all drop down)

3. Whether old building or new development?

4. What's your Orientation Of Building ? (drop down- east, west, north, south, northeast, north west, south east, south west),

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(score- north south orientation is good for cooler location, east-west location for hotter location- ERE, YES=60%, NO=40%),

Above the equator,NH— South facing-EW(or)(for cold areas), East facingNS(Or)—hot areas,

Below the equator-SH— North facing (cold areas), South facing-(hot areas).

(NH-Northern hemisphere, SH- Southern)

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5. Sunrise time (average)?

6. Sunset time (avg)?

7. Average Daylight (no of hours, avg, sunrise sunset)?

8. Temperature Min, hrs (avg)?

9. Temperature Max, hrs (avg)?

PROCESS 1 ASSESSMENT

COOLING HEATING NEEDS

1. No of Hours -Uncomfortable Hot temp, per day (avg/month)?

2. No of Hours- Uncomfortable Cold temp, per day (avg/month)

3. How many hrs need light, (Uncomfortable ambient light hours)?

4. How many hrs need heating (uncomfortable cold hours)?

5. How many hours need cooling, (uncomfortable hot hours)

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CALCULATIONS

Light usage (daylight, ambient light-10,000 lux), below these uncomfortable)

Heating usage (comfort temp-, 20-26c, above or below is uncomfortable hot or cold) (wakeup hours - (minus) avg daylight)

Cooling usage (comfort temp-, 20-26c, above is uncomfortable hot) (wakeup hours - (minus) avg daylight)

(assumption Number of wakeup hours- 16hrs)

(SCORE-(for each question,) ERE%- 40-60%, usage >5 hrs, ERE=40, usage <5hrs, ERE=60), (score, ERE, YES=60%, NO=40%), Savings%=(ERE-ERE/4)

Calculations= add up all the ERE, Save, c02er= suggest SDL options

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PROCESS 1 ASSESSMENT

USAGE

1. Heating Usage (no of hours/day)

2. Cooling Usage (no of hours)

3. Water Heating Usage, (no of hrs/day)

4. Lights Usage (no of hours)

5. Appliance Usage (no of hrs/day)

6. Other Devices Usage (dropdown-TV, computer-laptop, washing machine. dryer, dishwasher, charging-phone etc)

7. Water Usage (no of hrs/day

8. Gas other Usage (no of hrs/day)

9. Cooking-Gas/Electricity (no of hours)

Gas Usage (no of hours)

PROCESS 1 ASSESSMENT

USAGE WHEN NOT

1.Lights used even when comfortableNatural light available also? YES/NO

2. Heating/cooling/Lights used even when people not present inside the building also?

3. Heating/cooling used even when at comfortable natural temperature level also?

4. Water used even when people not present also?

5. Gas used even when people not present also?

PROCESS 1 ASSESSMENT

NATURAL WAY

1. Whether Recycle-water, solid waste, composting etc used onsite?

2. Whether natural light, air, green-trees-gardens available onsite for building, rooms?

3. Whats the paint colour of outside walls, surfaces, roof? painted lighter/darker colour?

4. What type of lights used, LED, Incandescent, Fluorescent Bulbs etc?

PROCESS 1 ASSESSMENT

SAVING METHOD

1. Any water saving method/technology used inside the room or buildings?

2. Any Power saving method/technology used inside the room or buildings?

3. Any Gas saving method/technology used inside the room or buildings? YES/NO

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PROCESS 2 SDL SOLUTION

ANY SMART SYSTEM USED?

1. Whether You installed anyInsulation?, (drop down-wall, being, windows, Doors, Attics, Basements, Floors, Roof top, cavity wall insulation, loft insulation, double glazing windows, High performance lass insulation, Trombe wall, Hemp masonry construction insulation, Green roof living insulation) (ERE-40%, Save=30%, co2er=15.36)

2.You installed Window Shading?

3.You installed LED Lights?

4.You installed Building Automation System (smart tech)?

5. You installed Low flow water fixture?

6. You installed Heat pumps?

7. You installed Thermostat ?

8. Yo installed Dynamic glass?

PROCESS 2 SDL SOLUTION

ANY SUSTAINABLE SYSTEM USED?

1.You installed Solar, PV panels -roof, walls etc?

2.You installed Solar water heater?

3.You installed Green, Cool Roof?

4.Whether you have Landscaping Around Site?

5.You have Lighter Colour Roof/Surfaces? (dropdown-Dark colour Paint to maximise absorb sunlight?, Roof top White paint, Lighter shade roads, sidewalks, Light colour surface Roof)

6.You installed Bio gas?

7. You installed Biomass?

8. You installed composting ?

9. You installed Micro wind turbines?

10. You installed Solar heating panel?

11. Do you installed geo thermal power ?

12. Do you have district heating?

	ERE%	Savings%	Co2eR
S.Insulation	40.00	30.00	15.36
S.Building autom system	15.00	11.25	12.37
S.District heating	50.00	37.50	4.65
S.Green	60.00	45.00	7.41
S.Solar Water Heater	60.00	45.00	7.41
S.Low Flow Water	45.00	33.75	2.15
S.Paint	33.00	24.75	10.81
S.LED Light	70.00	52.50	8.14

Tables are for there for the calculation (ass up all ERE, Save, co2er from Are you, Smart , Sustainable options and total score, ERE-Save-C02er) and suggest matching solution options to compensate the score of 100%,

	ERE%	Savings%	Co2eR
S.Bio Gas	75.00	56.25	75.00
S.Biomass	60.00	45.00	80.00
S.Building Material-Alternate	40.00	30.00	40.00
S. Heat Pumps	47.50	35.63	35.00
S.Dynamic Glass	9.00	6.75	10.34
S.Composting	50.00	37.50	50.00
S.Micro Wind Turbines	31.00	23.25	52.00
S.Micro Grids	29.00	21.75	95.00
S.High Performan Glass	10.00	7.50	11.34
S.Solar Panel PV BI	87.00	65.25	95.00
S.Geo Thermal Power	60.00	45.00	80.00
S.Solar Heating Panel	87.00	65.25	95.00
S.Green Cool Roof	60.00	45.00	80.00
S.Thermostat	24.00	18.00	43.00
S.Window Shading	33.00	24.75	55.00