## -Regulatory—

## PACE yourself ... for Denver's green roof measure

lection day 2017 brought with it some surprises. Readers of this publication were paying particularly close attention - regardless of which side of the issue you were on – to Denver's voter-led Green Roof Initiative. The measure passed by a solid margin from the kind of grassroots, voter-led effort that more typically result in "close ... but no" result. This was despite well-funded opposition from building owners, brokers and even the mayor. The measure applies to buildings over 25,000 square feet of total gross floor area.

Roof replacement typically provides only modest improvement of operations and maintenance or property value, especially for existing building stock. Yet now it comes with a potentially steep added compliance cost. Faced with implementing this important new high hurdle for building owners, city leaders assembled a task force of two dozen stakeholders to wrestle with the practical rollout of the new ordinance. The group represented building owners, operations and maintenance staff, varied contractors, energy and solar practitioners, architectures, water and air-quality professionals and, of course, the initiative's proponents.

 New recommended pathways. This fall, the Denver City Council will consider recommendations by the task force. They are expected



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to approve some important practical changes to the ordinance to ease the burden of implementation by offering several new pathways for compliance.

Recommended pathways for both existing and new building owners include new choices such as deep energy effi-

ciency in the building, retro-commissioning, parking area canopy solar and combinations of roof and building energy-saving treatments. Also included is a suggested name change to Green Building Ordinance.

Some of the first fact gathering by the task force confirmed eligibility of green roof measures with the New Energy Improvement District, the group established in 2016 by state statute to oversee and implement the state's new Commercial Property Assessed Clean Energy financing program. The task force learned that, as a practical matter, most, if not all, compliance measures and pathways it was considering were eligible for funding with C-PACE.

Of course, no one likes surprise costs, especially not in the market-driven economics of owning



Tom Slabe, Green Roofs of Colorado

The U.S. Environmental Protection Agency Region 8 headquarters' rooftop in Denver



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or investing in commercial real estate. So how might a building owner faced with a roof upgrade or replacement be able to turn compliance into a win?

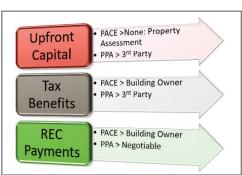
Because vegetative green roofs are so seldom in use, they tend to be dismissed as quirky and costly.

However understanding how vegetative green roofs save operations and maintenance costs, greatly lengthen the life of roofing and bring along other sustainability benefits makes them worth learning more about before jumping to conclusions. Also, new recommendations by the task force make combining smaller areas of vegetative roofs with other measures a practical pathway. Depending on the building type and roof design, this can provide an interesting solution or site amenity and is a conversation worth having with experts in the field.

• A win for the building owner? Net present value on some of these measures is, in fact, impressive, led by retro-commissioning, on-site solar and LED lighting. So now the added cost burden of compliance may generate significant operations and maintenance cost savings. In the case of on-site solar, savings come from lower energy costs and typically are coupled with 20-year revenue streams from Renewable Energy Credit payments and tax benefits that can reduce the cost of solar dramatically.

Yet even with respectable return on investment benefits, if added corporate capital is required for a surprise cost event, that capital must now be weighed against other opportunity costs. It often is better to use capital to expand business rather than improve facilities.

That is where the use of C-PACE financing can essentially erase the impact of compliance on the building owner or investor, sometimes turning compliance into a legitimate win – a win even the accountants can underscore. Financing energy improvements with C-PACE provides 100 percent of funds, no



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parent/owner guaranty and terms up to 25 years. The long-term financing often results in savings from energy and financial benefits that are higher than the additional annual property tax cost. That means the owner realizes first year gain rather than loss, with zero upfront capital.

• Follow the money. When financing on-site solar, the significant tax benefits become important, typically offsetting more than 50 percent of solar's costs. When the building owner can monetize all the tax equity, PACE financing can be used to capture all of those tax benefits and increase the return on investment. In fact, when roofing upgrades or other improvements such as a covered car canopy are necessary to support solar, many tax advisers conclude that those costs can be offset as necessary for solar – essentially getting 50-plus percent rebate on roofing or car

A key reason power purchase agreements are widely used is to achieve lower-cost energy with no use of business capital. In a PPA, the tax benefits flow to the third-party owner of the system. Some of those savings are shared with the building owner to lower the cost of energy.

However, PACE financing does not require any upfront capital. And since PACE debt increases property tax, it stays with the property upon sale and provides a fixed or hedged cost of energy for more than 20 years, plus all tax and incentive benefits.

As you brace yourself for Denver's new Green Roof Ordinance, you may now find new options and pathways to meet your needs. Additionally, Colorado's new C-PACE program can in some cases erase the capital burden of compliance.