What Companies Need to Successfully Compete for Funds Appropriated by the CHIPS and Science Act of 2021

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Good afternoon. My name is Clark Williams, I live in Sisters, and I have been asked to share with you my perspective of what companies need to successfully compete for the first tranche of funds that Congress appropriated in the CHIPS and Science Act of 2022.

My perspective is drawn from participating as a member of a consortium of developers, financiers, builders, and other subject matter experts whose mission is to help "covered entities" acquire "measurably secure" microchip foundries and microelectronic component manufacturing facilities in partnership with the public sector. One of our members was a principal author of the language that became Section 9902 of the National Defense Authorization Act of 2021 and, subsequently, the CHIPS and Science Act. The name of the consortium is Domestic Implementation Group LLC.

So, then, what is it that my colleagues and I believe Oregon companies that manufacture microelectronic components, for example, must do to successfully respond to the RFPs that the U.S. Department of Commerce will soon advertise? The answer begins with the hard requirements of Section 9902 and the nearly-as-hard expectations of the Department of Commerce that must be met by once and future owners and operators of such companies. To wit: they and their employees must be U.S. citizens; they can draw only upon domestic capital sources; and they will be required or expected to locate their facilities in low income and preferably rural communities, to employ people from economically disadvantaged groups, to engage local community colleges to train and educate their workforces, to contribute to community development, and more. What do I mean by more? Innovative ideas that are being considered in some states and locales range from providing day care centers to building family housing.

However, meeting the requirements and expectations of the federal government will compel the formation of true public-private partnerships, i.e., the formal commitment of state and local entities as signatories to the proposals that will be

submitted by covered entities. At the moment, the state of Kansas is the benchmark of public partners: the state has donated the land for five (soon to be seven, I believe) microelectronic components/products companies to build measurably secure facilities; the local county will fully develop the sites for the construction of the facilities; and, altogether, the public sector has pledged to support covered entities up to 50% of federal grants, loans, loan guarantees, or Other Transaction Authority contracts. The pledge now stands at more than $1B in deeded land, outright grants, and refundable incentives for committed projects that are valued at more than $2B.

What does a typical microelectronic component manufacturing facility look like? The answer, of course, depends upon what would be manufactured and at what volume. But let's assume that a facility is going to produce a variety of passive components such as resistors, capacitors, diodes, and inductors or, perhaps, more complex assemblies of microelectronic components: A medium size facility, such as some in Kansas, might require 30 or 40 acres of land; 400,000 square feet of manufacturing space; and several outbuildings (e.g., shipping and receiving, materials preparation, maintenance support, security operations, and offices for management and engineering). That typical, medium size facility would require ready access to rail and air transport and trucking. The facility would likely operate 24 hours per day, 7 days per week; it might employ 5 managers, 15 engineers, and 180 technicians who would earn between $80,000 and $250,000 per year; and it might cost $300 million and take 24-30 months to construct, build out, and commission. Typically, energy, water, and other essential resource requirements are reasonable — considerably less than a server farm or a microchip foundry.

So, then, what is the opportunity for Oregon? One such example is playing out now in Central Oregon — in Redmond — where a relatively small ($200M) covered entity is actively engaged with the city, with Redmond Economic Development Inc., and with others to build a first facility to perform R&D activities and to build several production lines for manufacturing microelectronic components. The demand for the company’s measurably secure components is nearly ironclad because, in part, the company will be among the first to market with components desperately needed for national defense and critical infrastructure applications. In turn, being first to market is contingent upon being among the first to submit a winning proposal to the Department of Commerce; and being among

the first to submit a winning proposal requires partnering with the City of Redmond, Deschutes County, and the state of Oregon.

I believe that the prospect of establishing such a public-private partnership in Redmond is good. The city has land, water, and power; it is interested in attracting new businesses that will add to its current base of middle-class jobs; it hosts one of the several campuses of Central Oregon Community College; it looks forward to collaborating with prospective newcomers in the technology sector; it will certainly exercise due diligence, but it is also ready and willing to be facile in light of the tight schedule imposed by the CHIPS and Science Act; and it offers a high quality of life, which forward-leaning companies are seeking for the benefit of their employees. As the CEO of this new company has said, our mantra is "Work to Live, not Live to Work."

While the local community — Redmond — has engaged at the planning level, what's missing at this critical moment is the state of Oregon and its allied agencies. What's needed are state sources earmarked for such businesses, including and perhaps especially for small and medium size businesses and startups, which would harbinger a great many competitive, educated, prosperous, rural Oregon communities far into the future. Kansas has set the high bar of a 50% match; Oregon may choose to do less. At this point in time, however, as U.S. senators Ron Wyden and Jeff Merkley have previously communicated in several public forums, Oregon is on the outside, looking in.

I urge you to act with all due haste. Thank you.

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